1996-12

Capability and intention : an analysis of the modernization of the PLA

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THESIS

CAPABILITY AND INTENTION: AN ANALYSIS OF THE MODERNIZATION OF THE PLA

by

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December, 1996

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REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

1.AGENCY USE ONLY *(Leave blank)*	2. REPORT DATE December 1996	3.REPORT TYPE AND DATES COVERED Master's Thesis

4.TITLE AND SUBTITLE CAPABILITY AND INTENTION: AN ANALYSIS OF THE MODERNIZATION OF THE PLA	5.FUNDING NUMBERS
6.AUTHOR Effie R. Petrie	
7.PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey CA 93943-5000	8.PERFORMING ORGANIZATION REPORT NUMBER
9.SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10.SPONSORING/MONITORING AGENCY REPORT NUMBER

11.SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.

12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.	12b.DISTRIBUTION CODE

13.ABSTRACT *(maximum 200 words)*

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Final analysis indicates that China's military modernization program is intended primarily to enhance domestic stability and economic growth and not to seek regional hegemony by force. However, there are several points of contention that may spur China to military action. Two possible areas of future conflict are Taiwan and the South China Sea. I maintain that China will probably refrain from aggression in these areas unless it feels its interests are endangered. It does not have the will or the capability to seek conflict in the region.

14.SUBJECT TERMS China, People's Liberation Army, PLA, Military Modernization, China Threat	15.NUMBER OF PAGES 135
	16.PRICE CODE

17.SECURITY CLASSIFICATION OF REPORT	18.SECURITY CLASSIFICATION OF THIS PAGE	19.SECURITY CLASSIFICATION OF ABSTRACT	20.LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	UL

Approved for public release; distribution is unlimited.

CAPABILITY AND INTENTION: AN ANALYSIS OF THE MODERNIZATION OF THE PLA

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Submitted in partial fulfillment
of the requirements for the degree of

MASTER OF ARTS IN NATIONAL SECURITY AFFAIRS

from the

NAVAL POSTGRADUATE SCHOOL
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ABSTRACT

In the wake of the Cold War, U.S. government officials and China analysts began to discuss the possibility of an emerging "China threat." This thesis assesses China's military modernization program in order to determine its capability and primary intent. Four aspects of the People's Liberation Army (PLA) are examined: the history of military modernization, PLA economic activities, the PLA's modernization strategy and force utilization.

Final analysis indicates that China's military modernization program is intended primarily to enhance domestic stability and economic growth and not to seek regional hegemony by force. However, there are several points of contention that may spur China to military action. Two possible areas of future conflict are Taiwan and the South China Sea. I maintain that China will probably refrain from aggression in these areas unless it feels its interests are endangered. It does not have the will or the capability to seek conflict in the region.

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EXECUTIVE SUMMARY

In the wake of the Cold War, China analysts began to discuss an emerging "China threat." The "China threat theory" assumes that China's economic growth will lead to increased military capabilities which in turn will constitute a threat to Asia and possibly even the United States. Critiques of the "China threat theory" maintain that China does not have the capability or intent to pursue regional hegemony by force or threat of force.

Faced with these two views on China's potential threat to Asia, this thesis examines the modernization of China's People's Liberation Army (PLA) in order to clarify China's current military capability and shed light on its intentions.

This thesis is divided into five chapters with each examining a different component of PLA modernization. In each chapter, I attempt to determine whether the primary goal of PLA modernization is to create a force capable of achieving hegemony in Asia through force or whether modernization is intended primarily to promote domestic stability and economic growth. The introductory chapter explores several possible reasons for PLA modernization and attemptS to determine the priority that China places on its military modernization in relation to other modernizations. Chapter II analyzes the PLA's economic activities in order to determine whether they enhance or detract from the PLA's

ability to conduct war. In Chapter III, I examine the steps that China is taking to modernize its forces. A review of specific weapon systems purchased by the military over the last several years is especially useful in determining whether China is primarily concerned with defense or seeks to obtain regional hegemony through force or threat of force. Chapter IV explores force utilization over the last few years including both force deployments and exercise activity. Finally, Chapter V discusses implication's of China's military modernization.

The Chinese have repeatedly emphasized its military modernization program over the last two decades in response to changes in the security environment. It appears to be aimed predominately at defending China from both internal and external threats. The rise in defense spending between 1991 and 1996 seems to be in response to perceived threats to China's internal stability which includes Taiwan and the South China Sea.

While China has placed an increased emphasis on military modernization in the last few years, most analysts agree that its military capability remains 15-20 years behind the United States. Even if China intended to use force in the region it does not have the capability to conduct sustained operations beyond the mainland.

This examination of China's military modernization highlights the PLA's capabilities and may give some insight

into its intentions. Analysis of PLA deployment patterns over the last two decades and recent military exercise activity enables a more indepth understanding of China's intentions.

In order for China to pose a threat to the Asia Pacific region, it must have both the military capability to carry out such a threat and the intent to use that capability. Analysis of the modernization of the PLA indicates that while China's military might is growing, for the most part, it is incapable of power projection and force sustainment. In addition, China does not seem to have any intention of obtaining regional hegemony by force. Chinese leaders are more interested in economic growth than in an attempt to obtain regional hegemony by force or threat of force. Any move in the latter direction would destabilize the region and impede China's economic growth. This does not mean, however, that there are no potential flash points in the region. I maintain that China is currently satisfied with the status quo but may react aggressively if it perceives that its interests are threatened in Taiwan or the South China Sea.

LIST OF ACRONYMS

AA	Anti Air
AAW	Anti Air Warfare
ASM	Anti Ship Missile
ASW	Anti Submarine Warfare
C3I	Command, Control, Communications and Intelligence
CMC	Central Military Commission
CNA	Center for Naval Analysis
EW	Electronic Warfare
FBIS	Foreign Broadcast Information Service
GA	Group Army
GLD	General Logistics Department
ICBM	Intercontinental Ballistic Missile
IRBM	Intermediate Range Ballistic Missile
KMT	Kuomintang (Nationalist Political Party in Taiwan)
KT	Kilo-ton
LF	Local Forces
LST	Landing Ship, Tank
MF	Main Forces
MIRV	Multiple Independent Reintry Vehicle
MR	Military Region
MRBM	Medium Range Ballistic Missile
NCO	Non-commissioned Offiicer
NORINCO	North Industries Corporation
OTH-B	Over-the-Horizon-Backscatter
PLA	People's Liberation Army (includes all services)
PLAAF	People's Liberation Army Air Force
PLAN	People's Liberation Army Navy
PME	Professional Military Education
PRC	People's Republic of China
ROC	Republic of China (Taiwan)
R&D	Research and Development
SAM	Surface-to-Air Missile
SEZ	Special Economic Zone
SLBM	Submarine Launched Ballistic Missile
SS	Attack Submarine
SSBN	Ballistic Missile Submarine-Nuclear
SSM	Surface-to-Surface Missile
SSN	Attack Submarine-Nuclear

ACKNOWLEDGEMENTS

My sincere thanks to both of my thesis advisors for their tremendous support in structuring, writing and editing this thesis. They dedicated their time, intellect, energy and ideas, and for that I am profoundly grateful and honored. Every student should have such admirable mentors.

Specifically, I am deeply indebted to Dr. Solomon Karmel and Dr. Mary Callahan. Dr. Karmel sparked my interest in the PLA and provided the subject expertise and insight which guided me through the writing of this thesis. Meanwhile, Dr. Callahan patiently provided me with daily guidance on structure and format. Her keen eye for logic and grammar was instrumental in developing a coherent final product. The efforts of my advisors notwithstanding, I alone am responsible for any errors or problems that remain in the analysis, conclusions and recommendations of this thesis.

Finally, I thank my parents, Richard and Martha Petrie, and brother Rick. Their belief in me and my abilities sustains me in everything I do.

I. INTRODUCTION

In the wake of the Cold War, U.S. government officials and China analysts began to discuss the possibility of an emerging "China threat." The "China threat theory" assumes that China's tremendous economic growth will lead to increased military capabilities which in turn will constitute a threat to Asia and possibly even the United States. Opponents of the "China threat theory" maintain that China does not have the capability or intent to pursue regional hegemony by force or threat of force. In this chapter, I will examine both sides of the "China threat" argument. I will also give an overview of this thesis, outlining my research question, hypothesis, methodology and relevance of the research.

Proponents of the "China threat theory" claim that China has expansionist tendencies and hegemonic intentions. Some advocates even go so far as to compare present day China to Germany and Japan in the early part of this century. Ezra Vogel, a Harvard Professor and the U.S. intelligence community's national intelligence officer for East Asia, observes, "China is now just starting out as a growing power, just as Japan and Germany were growing powers at the beginning of this century." (Mann 1995) Gideon Rachman, Asia editor of *The Economist*, also makes such comparisons. Citing China's explanation for recent military exercises in the

vicinity of Taiwan and Chinese aggression in the South China Sea, Rachman notes:

> expansionist powers can usually marshal some sort of historical argument to backup their claims: Hitler, after all, had historical claims to Austria and the Sudetentland that some people regarded as respectable at the time. (Rachman 1996)

Most "China threat" advocates point to the Taiwan situation and China's claim to the South China Sea as indicators of China's ambition to obtain hegemony in Asia.

As noted above, the "China threat" is based primarily on two considerations, China's rapidly developing economy and its growing military might. China's economy grew at rates of more than nine percent a year throughout the 1980s and continues to grow at that rate or better. (Mann 1995) As a result, it currently boasts the third largest economy in the world. At the same time, China has been pursuing a program of military modernization. While defense spending in the West has been flat or declining, China's defense budget is estimated to have increased by over 40 percent in the last six years. The increase in funding has allowed China to purchase advanced military equipment from Russia and advanced technology from Israel and Iran. However, a growing economy and a modern military alone do not create a threat; there must be intent as well. Chong-Pin Lin of the American Enterprise Institute believes that "Chinese military modernization has gained momentum and will likely bring

forward a more assertive China in international interactions." (Mann 1995)

While most government officials claim that they do not consider China a threat, there seems to be a growing pessimism and wariness in regards to China. A U.S. diplomat in Singapore maintained that "We are still worried about the disparity between what China says and what it is doing." (Jones 1993) Even the Department of Defense seems apprehensive of China. In February 1995 the Department of Defense Office of International Security Affairs published a report entitled *United States Security Strategy for the East-Asia Pacific Region*. While the report did not come right out and say that China is a threat to Asia, it suggested as much. It warns:

> Although China's leaders insist that their military build-up is defensive and commensurate with China's overall growth, others in the region cannot be certain of China's intentions, particularly in this period of leadership transition. (DoD 1995)

Not all China watchers use such tame words to describe their fear of China. In a statement prepared for the Senate Committee on Foreign Relations, Sven F. Kraemer, former director of the Arms Control National Security Council Staff 1981-1987, argues that ". . . China's imperial drive to be a regional and world power in economic and political terms continues, unchecked by democratic limits and too often appeased by foreign powers including the United States." Mr.

Kraemer also declared that China poses "a range of potential threats to America's security," citing China's growing nuclear capability and military modernization. Even former ambassador to Beijing, James R. Lilley, warns that "the danger of what we have on the question of China's military is that people are beginning to make the case that China is benign." (Tyler 1995)

The "China threat theory" is not only espoused by conservatives in the United States, it is also advocated by analysts throughout the Asia-Pacific region. The President of the Tokyo University of Foreign Studies, Mineo Nakajima, insists that the threat posed by China has prompted a new cold war. Nakajima states, "It is understandable that the United States feels that China is a threat in its defense posture. I think a new cold war between China and the United States has already begun in Asia." (Kiyono 1995) A White Paper released by Australia in 1994 also provides an apprehensive assessment of China growing military capability. It notes that "China is likely to continue to pursue its strategic objectives by a combination of diplomatic, political and economic means, underpinned by its growing military strength." In summary, the paper declares that ". . . we recognize that the security environment could deteriorate, perhaps quite seriously in the future." (White Paper quoted in McBeth 1994)

In light of the perceived "China Threat" some analysts are calling for a policy of containment. Charles Krauthammer of the Washington Post endorses this approach. Last year Krauthammer wrote of the need to resist China "as it tries relentlessly to expand its reach." (Chapman 1996) Krauthammer is joined by Gideon Rachman in his call for a containment policy asserting that:

> The debate over 'containing China' has begun--and not a moment too soon. If it means acknowledging openly that China is a destabilizing force in Asia and that the other powers in the Pacific need to coordinate their responses to growing Chinese power, then containment is what is needed. (Rachman 1996)

Not all U.S. policymakers and China analysts believe China poses an immediate threat to the Asia-Pacific region. One China expert, Karl W. Eikenberry says:

> In the time frame that does matter in security issues relating to potential challengers, perhaps 15 years into the future, the PRC is unlikely to disrupt the equilibrium in East Asia. (Eikenberry 1995)

Eikenberry is one of the few sources that directly disputes the "China threat," instead most warn of a self-fufilling prophesy. That is to say, while China may not be a threat now, it may become one if we are not careful. If China feels its interests are threatened and the rest of the world is attempting to encircle and contain it, China may become aggressive towards it neighbors and possibly even the United States.

In order to prevent a self-fufilling prophesy, a number of experts believe that the best policy for China is one of engagement. Some proponents of engagement are Admiral Joseph W. Prueher, Commander in Chief, U.S. Pacific Command, Winston Lord, Assistant Secretary for East Asia and the Pacific, and David M. Lampton, President of the National Committee on U.S.- China Relations.

China, not surprisingly, also has been attempting to refute the "China threat theory." Liu Huaqing recently wrote an observer article responding to the "China threat theory." Liu is currently the PLA's most senior military officer, serving as the senior Vice Chairman of the Central Military Commission (CMC). He is the final authority on decisions that match China's defense strategy and its R&D and acquisition priorities. (Wilhelm 1996) Observer articles are occasionally used by PRC leaders to convey their stance on important issues. In the article, Liu refers to both the priority of economic modernization and the importance of a strong defense in realizing that priority.

> . . . with a strong national defense, we can both win and prevent a war, discouraging an enemy from taking reckless action...(our) wish (is to) have a prosperous country and strong army, to revitalize the Chinese nation and to effect economic take off. (Huaqing 1993)

Ching Pao quotes Huaqing as saying, "China will never pursue hegemonism, but must guard against U.S. efforts to interfere in China; China is USA's main enemy." (Ching Pao 1994) In addition to speeches and articles, Chinese leaders published

a White Paper on Arms Control and Disarmament. The paper was released in an effort to make Chinese motives more transparent to its nervous neighbors and westerners. It professes that "China's national defense policy is defensive in nature" and that "the task of first importance facing the Chinese people is to develop the economy and change the poverty and backwardness of the nations." Finally, the paper assures that "China's national defense building is not directed against any country, and thus, does not pose a threat to any country." (Xinhua 1995)

Faced with these two views on China's potential threat to Asia, this thesis will examine the modernization of China's People's Liberation Army (PLA) and assess its nature and purpose. The research will clarify the current military situation and shed light on China's intentions.

A. RESEARCH QUESTION AND HYPOTHESIS

The primary question that this thesis will attempt to answer is as follows: "To what extent is China's military modernization program intended to promote internal stability and economic growth and to what extent is it intended to create a force capable of achieving regional hegemony through force or the threat of force?"

I hypothesize that China's military modernization is primarily intended to promote domestic stability and economic growth. This hypothesis is complicated, however, by the fact

that China considers Taiwan and the South China Sea part of its sovereign territory. While I do not believe that China will attempt to achieve regional hegemony outside of its claimed sovereign territory in the near future, it is possible that the PLA will commit acts of aggression against Taiwan if provoked by a Taiwan independence movement or increased U.S. commitments to Taiwan. In the South China Sea, China will most likely attempt to gain/maintain influence by peaceful means. Random minor acts of aggression may occur if China feels that its interests in the region are being violated.

B. ORGANIZATION OF THESIS

This thesis will be divided into five chapters with each examining a different component of PLA modernization. In each chapter, I will attempt to determine the primary goal of PLA modernization. This chapter has defined the "China threat theory," presenting both sides of the argument. The next chapter will explore several possible reasons for PLA modernization and attempt to determine the priority that China places on its military modernization in relation to other modernizations (agricultural, industrial and research & development).

Chapter III will analyze the PLA's economic activities. In allowing the military to operate a wide range of businesses the PRC makes a significant trade-off. PLA

business ventures both help to fund modernization and to stimulate the Chinese economy. At the same time, however, they endanger efforts to professionalize the officer corps. The government's willingness to allow these activities to continue may indicate that it places a higher priority on economic growth than professionalization of the military.

In Chapter IV, I will examine the steps that China is taking to modernize its forces. Since the late 1970s and especially since 1989, China has realized the importance of research and development (R&D) in creating and maintaining a modern force. It has therefore placed an emphasis on obtaining new technologies and educating its scientists and engineers in the West. Other elements of PLA modernization include the education and training of troops, restructuring of forces, and the acquisition of new weapon systems. Each of these elements will be discussed in detail in order to determine the primary goal of modernization. A review of specific weapon systems purchased by the military over the last several years will be especially useful in determining whether China is primarily concerned with defense of the motherland or obtaining regional hegemony through force or threat of force.

Chapter V will explore force utilization over the last few years and current exercise activity in each of China's seven military regions (MR). I will study both Chinese aggression and military exercises in four locations: the

South China Sea, the waters surrounding Taiwan, Xinjiang Province and the Tibet Autonomous Region. I will conclude in Chapter VI with a discussion of the implications of China's military modernization and recommendations for U.S. policymakers.

C. METHODOLOGY

In writing this thesis I analyzed numerous sources on PLA modernization. The majority of my sources were taken from Lexis-Nexis and the Foreign Broadcast Information Service (FBIS). Information taken from these two sources include newspaper articles, transcripts of Congressional hearings, translations of speeches given by Chinese leaders and translations of official Chinese documents. I also examined articles from magazines such as Far Eastern Economic Review, Jane's Defense Weekly, Asia Defense Journal and Jane's Intelligence Review. Reports published by the Center for Naval Analysis (CNA), the RAND Corporation and the International Institute for Strategic Studies were also reviewed. Finally, I conducted interviews with China experts from the Office of the Secretary of Defense, Defense Intelligence Agency, Office of the Chief of Naval Operations, Department of the Army and the State Department.

D. RELEVANCE

As we prepare to enter the 21st Century, the Asia-Pacific region occupies a prominent place in U.S. policy and security strategy. Economic ties between the United States and the nations of Asia make it of vital national interest to promote growth and maintain security in the region. In the post-Cold War era, many countries in the region fear that a power vacuum exists and that the People's Republic of China is preparing to fill this void. China's booming economy has enabled it to embark on a military modernization program. A modern military may give China the capability to seek regional hegemony, by force if necessary. It is, therefore, important to determine whether China is modernizing its military only as a means to promote economic growth and internal stability or whether it intends to use it to seek regional hegemony through intimidation and force.

II. BASIS FOR MILITARY MODERNIZATION

A. INTRODUCTION

This chapter will explore several possible reasons for PLA modernization and will attempt to determine the priority that China places on its military modernization in relation to economic modernizations. I will argue that China's military modernization program has been reemphasized five times during the last two decades based on perceived changes to China's security environment. I will also submit that the primary objective of military modernization is to address national defense and internal stability concerns and that in China's national modernization plan economic growth takes priority over military modernization. Finally, I will assert that, all these factors considered, China's military modernization is not primarily intended to achieve regional hegemony through force or threat of force but to enhance economic growth and internal stability. It is important, however, to remember that China considers Taiwan, Hong Kong and the South China Sea part of China. By definition, therefore, China's internal stability includes these areas.

B. HISTORY

First and foremost, modernization of the PLA is an integral part of an overall reform program first announced by Zhou Enlai in 1975. The program has received new emphasis

several times in the last two decades as a result of both wartime and peacetime experiences including Deng Xiaoping's rise to power, China's 1979 war with Vietnam, China's 1985 change in military strategy, the fall of the Soviet Union and the 1991 Persian Gulf War between the United States and Iraq. An examination of the history of military modernization efforts will discuss each of these events and their impact on China's modernization program.

1. Four Modernizations

In 1975, a new strategy for national development and security was announced by China's Premier Zhou Enlai. The strategy, termed "the Four Modernizations", was intended to build China into a modern and powerful country by the year 2000. In a speech to Communist Party members Zhou laid out the modernizations required for a comprehensive reform of society. These reforms, in order of priority, were in agriculture, industry, science & technology and defense. (Wilhelm 1996) It is important to note that defense was the fourth and last priority in the modernization strategy. Zhou believed that adoption of the "Four Modernizations" would ensure China's long-range security. In view of China's history of great suffering and humiliation at the hands of imperialists, security was a top priority for the PRC government. According to Weixing Hu, "Chinese leaders tend to use this historical sense of vulnerability as the driving

force for the modernization campaign." (Hu 1995) In spite of Zhou's announcement, the "Four Modernizations" campaign did not receive real emphasis until 1978, three years after Zhou's death, under the leadership of Deng Xiaoping.

As the "Four Modernizations" campaign indicates, the PRC "pursues a national strategy with economic construction at the core." (Kayahara 1995) While China's economy is experiencing an unprecedented boom, most of the country (particularly the interior) remains backward and undeveloped. The stated goal of Chinese leaders is to develop a prosperous and stable China. In order to achieve this goal, "a peaceful international environment is necessary....A prosperous and stable China, in turn, will increasingly benefit world peace." (Xinhua 1995)

2. Deng's Rise to Power and Vietnam

As Zhou's protégé, Deng Xiaoping favored the "Four Modernizations" program. At the Third Plenary Session of the 11th CPC Central Committee, Deng officially adopted the "Four Modernizations" as the program that would drive China from its backward state into the modern era. The decision was reinforced by the war with Vietnam the following year.

In late 1978, Vietnam, backed by the Soviet Union, invaded Cambodia and toppled Pol Pot's Chinese-backed forces. In response to this Vietnamese aggression, China invaded Vietnam. Since the Vietnamese army was already engaged with

Cambodian forces on its southwestern border, the invasion by China forced it to fight on two fronts. The People's Liberation Army seemed to have the advantage by virtue of its overwhelming size and the two-front nature of Vietnam's war. The Vietnamese army, however, was the most combat-experienced army in Asia. For decades it had fought wars against France and later the United States. It was not only more experienced than the PLA, but it also proved more mobile and technologically advanced. As a result, the Vietnamese successfully resisted the Chinese, inflicting high casualties on the invading army. The defeat shocked the Chinese leadership, especially Deng. According to one observer:

> The magnitude of the PLA's losses was a humbling and compelling argument for reform...not only the military but China's entire infrastructure required reform. The Chinese did not have the technological industrial capability to build the modern military equipment needed, couldn't afford to buy it on the foreign market, and did not have the military education and training system to effectively use it...Both the nation's and the PLA's infrastructure had to be overhauled. (Wilhelm 1996)

By the 1979, Chinese leaders were more than ready to implement the "Four Modernizations" program first proffered by Zhou Enlai four years earlier.

3. Shift in Defense Strategy

The "Four Modernizations" program continued at a moderate pace through the early 1980s. During this time, economic growth was the driving factor behind China's efforts

with an understanding that successful military modernization could be accomplished only in a prosperous China.

It was not until 1985 that the PRC augmented the "Four Modernizations" with a change in military strategy. Traditionally, the PRC viewed the prospects of a world war as inevitable. By the mid-1980s, however, China began to believe that it would not be faced with a major war with either superpower in the near term. This combined with an improvement in relations with Russia, India and Vietnam, China's traditional enemies, led to a change in military strategy. (Hu 1995)

Since the inception of Communist rule, China had followed Mao's concept of 'People's War.' The objective of 'People's War' was to fight a long, protracted, land war emphasizing large land maneuvers. The PLA would draw the enemy onto Chinese territory at which point the entire population, mobilized for war, would participate. The adversary would be consumed by the Chinese masses. The Chinese believed that they would eventually win this type of war based on attrition of enemy forces. In light of the changed security environment, however, the concept of 'People's War' no longer seemed suitable.

The consensus among Chinese leadership was that China's future wars, at least in the near term, would be local wars. Under this assumption, Deng changed China's strategy from one of 'People's War' to 'People's War under Modern Conditions.'

Local wars would be geographically confined, short conflicts breaking out abruptly on China's periphery. Speed and surprise are characteristic of this type of warfare making imperative a well-trained military as well as lethality and variability of weapons. (Hu 1995) Admiral Liu Huaqing, the PLA's most senior military officer and former head of the PLA Navy (PLAN), describes the PLA's role as being "to fight modern warfare under-high tech conditions ...(with) the adoption of the new strategy (being) significant in the PLA's modernization program" (Quoted in Ji 1995)

4. Post-Cold War

The fall of the Soviet Union and the end of the Cold War was important in several respects. First, it reinforced China's new military strategy. Second, the fall of the Soviet Union led to the realization among Chinese leaders that the new military strategy is dependent on sustained economic growth. The Soviet Union made the mistake of putting the "gun above the butter," placing more emphasis on military might rather than promoting a well-rounded national strength built from the ground up. (Ji 1995) Finally, the end of the Cold War markedly improved China's security environment.

Since the Sino-Soviet split in the late 1950s, Russia had been considered a major military threat. Both the Chinese and the Soviets had large numbers of troops stationed

along the Sino-Russian border in anticipation of a major conflict. However, after the fall of the Soviet Union, a conflict of this nature was deemed improbable. Not only was the Russian threat reduced, China also had established favorable relations with South Korea and many other Asian nations. The peaceful post-Cold War environment enabled China to concentrate on rapid economic development and to continue to raise the quality of its armed forces. The PLA shifted from a wartime mentality to one of peacetime construction. (Xinhua 1995) As one scholar notes, Deng believed that it was "no longer necessary for the PLA to stay at wartime readiness and to monopolize resources that could be put to use by the civilian sector." (Henley 1988) While military modernization has always been the fourth priority in China's military modernization program, the end of the Cold War allowed the country to put an even greater emphasis on its economic modernization programs than was previously possible. (Hu 1995) The booming economy, in turn, can support a modest military modernization program.

5. The Persian Gulf War

The latest event to have an impact on China's military modernization program was the Gulf War between the United States (and allies) and Iraq. Many PLA generals and commanders were astounded by the swift outcome of the War. Iraqi forces were seen as similar in character to China's own

forces. The Iraqi's fought with "weapons and equipment that in many cases replicated those employed by Chinese forces today." (Godwin 1994) As a result, PLA leaders carefully studied the war, publishing many of their conclusions. The technological proficiency of American weapons and the rapid defeat of Iraqi forces highlighted the necessity of upgrading the PLA's weapons, the majority of which are based on 1960s and 1970s technology. (Hu 1995) The conflict was seen by many Chinese military experts as the epitome of modern warfare.

> War was unexpected, fought for limited political objectives, conducted as a combined arms campaign using all resources from space systems to riflemen, fought by extremely well trained troops using high-technology weapons and equipment, fought with great speed and lethality. (Godwin 1994)

The Chinese see this type of war as the inevitable pattern of future armed conflict. As a result, the PLA's leadership has deemed that the nation should prepare for the high-tech warfare of the next century. (Ji 1995) The realization that the PLA, in its current condition, would not be able to fight successfully these future high-tech wars was expressed in March 1993 at a meeting of the National People's Congress. Military leaders expressed their concern in the matter stating that "without the support of high technology, the army can hardly win a war fought under modern conditions." (Bitzinger and Gill 1996)

China's leaders realize that a high-tech military can not be supported without a strong economic base and an advanced research and development foundation supporting a high-tech industrial sector. They also realize that education and training in these high-tech domains are essential to a modern military. For these reasons the economic modernization must take priority over military modernization.

C. NATIONAL DEFENSE

In the post-Cold War era, China shares its border with 14 nations. Even though the PRC has improved relations with most of its neighbors in the last decade, there are still a few minor border disputes which may be perceived as a threat to China's territorial integrity. China's change in defense strategy from one anticipating a major war to one in which local and subregional border wars dominate require it to place enormous emphasis on self defense. For this reason, the PLA must be first and foremost a continental defense force.

The PLA's emphasis on self defense is not a new concept. China has always claimed a strategy of defense. Most recently, the official policy is one of 'positive defense.' The stated goals of the policy are to "consolidate national defense, resist foreign aggression, defend the national sovereignty over its territory, territorial waters and air

space as well as its maritime rights and interests, and safeguard national unity and security." (Xinhua 1995) China, therefore, claims that the modernization of its military is primarily in support of these goals, stating that its "defense building is not directed against any country." (Xinhua 1995) It is not surprising that the Chinese are concerned about foreign aggression and defense of China's sovereign territory. Historically, China has been subjected to foreign belligerence, especially in the century between the Opium War and the end of World War II, which are remembered as China's "hundred years of shame."

D. TERRITORIAL DISPUTES

Associated with China's national defense is the issue of territorial disputes between China and its neighbors. The two most prominently disputed areas are Taiwan (including the Taiwan Straits) and the Spratly Islands in the South China Sea. Beijing's military strategic concern is focused on territorial issues in both of these regions.

As Mao Zedong and the Communists entered Beijing, nearly 50 years ago, the Nationalists led by Chiang Kai-shek fled to the island of Formosa (Taiwan). Since that time, the governments of both the PRC and the Republic of China (ROC) claim to be the legitimate ruler of China. Although there have been clashes between the two, neither has ever attempted to claim itself as independent of the other. In the past

decade, the PRC seemed to be content with the status-quo. Mutual trade ties have been established and contact between the two sides has been at a record high. Both sides still subscribed to a "One China" policy, hoping for an eventual resolution of their differences and a reunification of the two sides.

In the 1990s, however, the status-quo has been threatened. As its power waned, the Kuomintang (KMT) in Taiwan lifted martial law and the ban on political parties. In response to these new freedoms and encouraged by the break-up of the Soviet Union, an independence movement formed in Taiwan, threatening the integrity of "One China." (Hu 1995) The PRC still views Taiwan as Chinese territory and any move toward Taiwanese independence is considered a threat to China. Not only would an independent Taiwan destroy any hopes of a reunification, I would also argue that it may result in a domino effect. Ethnic minorities in Tibet and Xinjiang may attempt to follow Taiwan's lead. Although not supported by the majority of Taiwanese citizens, the independence movement has spurred hostilities between the two Chinas.

China also feels threatened by Taiwan's recent purchase of arms from abroad. Specifically, the purchase of F-16s from the United States and Mirage 2000s from France concerns Chinese leaders. The addition of modern military technology

to Taiwan's already robust inventory is perceived as directed at the PRC.

The South China Sea is also a territory in dispute. Traditionally, China has claimed rights to the South China Sea to include its island reefs and maritime space. Since the 1970s many of the Nansha (Spratly) Islands have also been claimed, in part or whole, by six other nations. The controversy surrounding the islands has heightened since the islands were identified as potentially oil and gas rich. (Studeman 1996)

The Taiwan Strait and South China Sea disputes are both considerations in China's military modernization. In each area China feels that its territorial integrity may be threatened, but does not possess the military capability to ensure successful resolution to either problem if deemed necessary. The PLA is hindered by its inability to sustain forces for any great length of time and by its lack of power projection capability. These inadequacies can only be solved by building a modern military.

E. INTERNAL INSTABILITY

China's concerns are not limited to national defense and territorial disputes; domestic problems plague it as well. The gravest threat to China's internal stability is presented by internal opponents to the regime. Ethnic minorities in Tibet and Xinjiang periodically rise up against the

government in Beijing. A book written in China without official approval, "Can the Chinese Army Win the Next War?" claims that these forces have been more active in recent years under the influence of "hostile western elements". (JPRS 1994) In Xinjiang about 60% of the population is non-Chinese (non-Han) and in Tibet almost 95% of the permanent population is non-Chinese. (Hu 1995) As a result, neither feels a strong ethnic tie to China or the Chinese people.

Tibet was essentially autonomous from Beijing's political control until the early 1950s when Chinese forces began occupying the region. In 1959 the Dalai Lama, Tibet's spiritual leader, was driven into exile. For the last 40 years activist forces in Tibet along with those in exile have been lobbying the international community for the return of their national sovereignty.

Xinjiang, while territorially part of China, is ethnically and culturally closer to the former Central Asian Republics of the Soviet Union and to Turkey. The break-up of the Soviet Union gave new hope to the ethnic minorities in Xinjiang, inciting independence forces in the region. In addition to arousing separatist forces in western China, the newly independent nations in Central Asia, specifically Kazakstan, have also made territorial claims on the Chinese government. (JPRS 1994) Political instability and ethnic tensions in these areas also threaten to spill into China. (Hu 1995)

Opposition closer to Beijing, in the form of pro-democracy advocates, also has caused problems for the Chinese government in recent years. In 1989, the Tiananmen Square demonstration embarrassed the government during a state visit by Mikhail Gorbachev. Subsequently, military actions against the peaceful demonstrators induced international rebuke. Since the massacre, China has been subject to repeated attacks and economic sanctions based on its human rights record.

While the external threat to China has diminished in the last decade, the influence of western ideology is perceived as an increasing threat to the nation's domestic stability. In spite of growing economic and military power, China remains a weak state politically. Chinese leaders feel vulnerable to external threats against the nations ideological base and political institutions. (Hu 1995) As long as China remains a Communist nation, it must rely on the state police backed by a strong military to maintain internal cohesion.

F. CONCLUSION

China has a long and glorious past in which its emperors' rule was justified by the "mandate of heaven." At the same time, vassal states viewed China with great respect. In the 19th century, however, China's status changed. Foreign influence in China's internal affairs led to a

"hundred years of shame" for the Chinese people. It is, therefore, only natural that China's leaders are wary of foreign intervention in the country's internal affairs. China's wish to become, once again, a respected and influential entity in Asia is also understandable. However, this does not mean that China is modernizing its army in order to gain regional hegemony by force or threat of force.

China's modernization program is intended primarily to promote economic development. Its guide, the "Four Modernizations," stresses the importance of agriculture, industry and science and technology. Military modernization is also viewed as important, but is of lower priority than economic modernization. China can only attain a position of status and respect in the international community by developing comprehensive national strength. In addition to military modernizations, it must evolve economically and politically. Today, a nation's power is largely determined by its economic strength and political connections. China must strive to continue its economic growth and cultivate relations with both its neighbors and the west.

The analysis conducted in this chapter indicates that China's military modernization program has been repeatedly emphasized over the last two decades in response to changes in the security environment. It also appears to reveal that PLA modernization is aimed predominately at defending China from both internal and external threats. The rise in defense

spending between 1991 and 1996 seems to be in response to perceived threats to China's internal stability. China fears that Taiwan and the ethnic minorities in western China will attempt to separate themselves from the PRC. This fear probably became more accute after the break-up of the Soviet Union when former Soviet Republics gained independence. China also perceives a threat to its interests in the South China Sea. It may feel that other claimants are attempting to crowd China out of the region. Subsequent chapters will more closely analyze the modernization activities of the PLA in order to determine whether the facts bear out these conclusions. It is important to note, however, that while China may be modernizing its forces for defensive purposes, many of the weapon systems it has obtained can be used both defensively and offensively. Intent may change overnight, but weapons systems cannot.

III. PLA ECONOMIC ACTIVITY

A. INTRODUCTION

In the last few years, China has become the world's third largest investor in national defense, with spending estimated at between $18 and $25 billion a year. (Oliver 1994) Not surprisingly, the Central Government in Beijing is unable to support a budget of this magnitude. In fact, the government only contributes $7 billion a year to defense. The remainder of the budget is funded by other government sources along with a multibillion dollar corporate empire controlled by the People's Liberation Army (PLA).

This chapter will trace the evolution of the PLA's vast business empire, which has a hand in almost every commercial sector, from military hardware to washing machines. According to Uli Schmetzer of the Chicago Tribune, "There is no sphere of commerce in which the PLA does not have a finger or a whole hand." (Schmetzer 1994) Although impossible to name every PLA enterprise, I will highlight three particularly successful corporations: Polytechnology, Xinxing and North Industries Corporation. I also will examine briefly the PLA's role in Hong Kong and consider the implications of post-1997 Chinese rule therein.

While the success of PLA enterprises brings in billions of yuan each year, the empire is not without its problems. Government officials fear that commercialization is skewing

PLA priorities, impeding attempts to professionalize the armed forces and promoting corruption in the organization. In view of these problems, Jiang Zemin and the Central Military Commission are attempting to reassert control over the PLA and its business empire. This chapter will identify a few of the more serious problems the PLA faces and address government attempts to control the PLA's business empire. I would argue that if China's intent is to build a military capable of obtaining regional hegemony by force or threat of force, it must place emphasis on military professionalization rather than economic gain. It also must emphasize production of military vice civilian goods.

B. BACKGROUND

The PLA's business venture began in the decades preceding the Chinese Revolution. China's central government often was unable to deliver needed supplies to military units scattered across the country. In order to survive, soldiers were forced to depend on their own resources for food and clothing. Farms and factories were procured to meet these needs. (Bickford 1994) PLA involvement in economic activities during the revolutionary period (1949) served to ease the economic burden on the local populations. The army could bear most of the cost of feeding and clothing its soldiers. As a result, the military gained the goodwill and support of the people. After the 1949 Revolution, the army

maintained control of its farming and industrial systems. From 1958-1976, Maoist doctrine encouraged the PLA to continue these activities. Their business ventures were seen as essential to maintaining the army's readiness level, but were never meant to be 'for profit' enterprises.

The 'not for profit' philosophy would change upon Mao ZeDong's death in 1976. Deng Xiaoping implemented radical reforms throughout China. Deng rid China of many Maoist constraints in an attempt to modernize China's economy. The removal of these restraints allowed the PLA to move into activities that were previously off-limits to the organization. (Joffe 1995) Over the next few decades, the PLA expanded its sector of involvement to include defense-related industries. The technologies developed and hardware produced were both for use at home and for sale abroad. Involvement in business was especially attractive to PLA leaders since all profits increased the financial strength of the army. During the late 1970s and throughout the 1980s, energies were redirected toward the manufacturing goods for civilian use. Factories that originally turned out tanks now produce motorcycles; former missile factories make refrigerators. (Country Forecast 1994)

The decision to convert production from military to civilian goods was made possible both by Deng's reforms and a new international climate. Deng's reforms created a demand for advanced technology and specialists, both of which were

readily available in the military-industrial complex. At the same time, China experienced a changed security environment. The Soviet Union was no longer considered the security threat it had been in the past. As a result, Deng decided to give economic development priority over military modernization. Production priorities in military industries were shifted to civilian goods. By the early 1990s, 66-76% of total production by military industries was for the civilian market; in contrast, only 8% of total output in 1979 was devoted to this market. (Joffe 1995) Today, according to the Far Eastern Economic Review, the five largest defense enterprises employ almost 200,000 workers. These plants produce a range of goods from space launchers and aero-engines to sports bicycles and cigarette-making machines. (Far Eastern Economic Review 1993)

It is estimated that the PLA currently runs over 20,000 enterprises, 75 percent of which were converted from military to civilian production. (Schmetzer 1994) Today, commercial ventures are integral to the maintenance of China's three million member army. The commercial empire's scope far exceeds the military sphere as it fully participates in both domestic and international markets.

C. TYPES OF ENTERPRISES

PLA enterprises fall into three general categories: corporations controlled by PLA leadership at the national

level, businesses run by individual military units and joint ventures. "All three types are self-run and assume sole responsibility for profits and losses." (Bickford 1994) In addition to these categories, the PLA also receives some income from industries that fall under the control of China's State Council or Cabinet. (Holberton and Walker 1994) Industries in this final category are removed from the daily tasks of the PLA and do not involve participation from PLA officers and soldiers. It is, however, believed that some of the profits from such industries are funneled back to the PLA. (Joffe 1995)

1. National Level Enterprises

At the national level, most PLA enterprises are run by the General Logistics Department (GLD). The remainder are controlled by either the General Staff Headquarters or the General Political Department. The list of corporations and businesses controlled at the national level are too extensive to review in this thesis. I will, however, give a brief description of three of the more significant PLA enterprises; China Polytechnology, China Xinxing Corporation and China North Industries Group (NORINCO).

China Polytechnology, also known as the Poly Group, is the most extensive entity in the PLA's commercial empire. Not surprisingly, the headquarters for the PLA's commercial empire is located in Poly Plaza. Poly Group is owned by the

PLA General Staff and run by Major-General He Ping, son-in-law of Deng Xiaoping. (Holberton and Walker 1994) Selling weapons from existing stockpiles, Poly Group has become the primary arms exporter for the PLA. This is a significant contribution considering that arms sales are the largest single source of extra-budgetary income for the army. (Bickford 1994) Poly is also the aviation purchasing arm for the government, even acquiring airplanes and helicopters from the United States. (Market Report 1995) The corporation does not stop at military sales and purchases. It also is involved in electronics, shipping finance, real estate and telecommunications. Possibly the most aggressive of the PLA enterprises, "Poly Group is well on its way to becoming one of China's biggest conglomerates." (Holberton and Walker 1994)

Another flourishing PLA enterprise is the China Xinxing Corporation. Owned by the General Logistics Department, Xinxing is a conglomerate of firms that produce a wide variety of products. The enterprise was originally a trading company responsible for supplying uniforms and food to the army. In 1991 it became a conglomerate that officially claims around 100 subsidiaries. Xinxing boasts a diversity of activities which range from speculating in Hong Kong real estate to creating designer clothing. (Goodspeed 1994) Its primary interest, however, is the production and sales of pharmaceuticals through its sister organization, 999

enterprise. A growing corporation, "Xinxing has (even) established offices abroad, including one in Hong Kong." (Holberton and Walker 1994)

China's North Industries Corporation (NORINCO) is also a major source of income for the PLA. NORINCO, a product of the Fifth Ministry of Machine Building, like Xinxing is involved in a broad range of activities. It is immersed in construction, real estate, manufacturing, finance, trading and arms sales. One of the few organizations allowed to raise capital abroad, NORINCO holds a prized position among Chinese corporations and is certain to continue its contribution to the PLA into the 21st century. (Holberton and Walker 1994)

These corporations are by no means all-inclusive of businesses run at the national level. The PLA also runs a network of approximately three hundred hospitals and four medical colleges; is the largest manufacturer of satellite dishes in China; and is estimated to own more than 80% of production in aviation, aerospace, nuclear, electronic, shipping and weaponry sectors. (Cheung 1995) Suffice to say, PLA nationally controlled industries include an immense range of goods, services and technologies.

The Air Force and Navy are also involved in economic endeavors which contribute to the military budget. Each is particularly well-suited, not to mention well-placed, to take advantage of large scale operations in its area of expertise.

The Air Force, for example, owned 23 large and medium sized airports in 1993. These airports cater to both the civilian and military population. In addition, the Air Force runs China United Airlines which was flying 39 domestic routes by 1992. (Joffe 1995)

The Navy has established a shipping fleet that contracts out merchant ships for civilian cargo. (Joffe 1995) It also controls many of the harbors along China's eastern coast. (Far Eastern Economic Review 1993) This is especially profitable considering the amount of trade the nation conducts on a daily basis.

2. Regional and Unit Level Enterprises

Many successful PLA businesses are also run at the regional or unit level. A trading company associated with the Chengdu Military Region exports products to more than a hundred regions and countries, "becoming one of the top foreign exchange earners for the PLA." (Bickford 1994) Another successful regional enterprise is Changcheng (Great Wall) Industrial Conglomerate. The Guangzhou-based enterprise is owned by the 42nd Group Army and operates approximately 90 enterprises. (Joffe 1995) Various military regions also own and run a variety of hotels, guest houses and souvenir shops. Farming, food processing and construction also take place at the local level.

Some military backed enterprises are tied to one of China's Special Economic Zones (SEZ). Enterprises in these areas often receive special incentives such as tax breaks. Ten percent of the officially acknowledged PLA enterprises operate in the Guangdong SEZ thus receiving special treatment. (Far Eastern Economic Review 1993) Shenzhen Special Economic Zone also has its share of military-run businesses. The 999 Enterprise Group combines all thirty-four companies operating under the General Logistics Department in the Zone. According to Joffe, foreign sales for 999 alone were estimated at $12 million in 1993. Trade companies in the group market their goods in Russia, Sudan, Singapore, Hong Kong, Taiwan, Egypt and Qatar. (Joffe 1995)

3. Joint Ventures

Expansion into less traditional sectors of production has increased the amount of contact PLA leadership and its business managers have with foreigners and foreign firms. As a result, many joint ventures have been pursued. Currently, the PLA is a party in more than 200 joint ventures with domestic and foreign firms. (Akita 1995) Joint ventures are most abundant in the Special Economic Zones of Zhanjiang in Canton and Zhuhai near Macao. They are not, however, limited to these areas. Inner Mongolia is also a point of

contention. In this area, Mercedes-Benz produces trucks and Siemens of Germany makes telecommunications equipment. (Schmetzer 1994) Similar ventures with U.S. and Japanese companies also contribute to the PLA's massive empire. Joint ventures on a much smaller scale also exist. One example is China's joint venture garages. Large, well-equipped maintenance garages found throughout the provinces are often jointly owned with foreign partners from Singapore, Taiwan or Hong Kong. (Market Report 1995)

D. DRAWBACKS OF COMMERCIALIZATION

While it is unclear exactly how much money the PLA's commercial empire brings in annually, estimates of $5 billion seem reasonable. (Economist 1994) Some experts even estimate that military-backed enterprises generate revenue matching the defense budget. (Far Eastern Economic Review 1993) Cut-backs in the defense budget have made this source of income vital to the continuing support of the three million member army. However, the PLA's commercial empire does not come without drawbacks. While most of the income generated from PLA businesses goes toward improving food and living standards for soldiers and remodeling the military, the rest is either plowed back into the big commercial enterprises or pocketed by managers. These activities could lead to corruption which in turn might degrade attempts to professionalize the PLA.

The commercialization of PLA has both military and government officials concerned. Soldiers seem more interested in turning a profit than in protecting the 'mother land.' Instead of selling arms to insurgents on the basis of ideology, PLA enterprises are increasingly only motivated by profit. The PLA's capitalist spirit undermines the Chinese government and the Communist Party. (Bickford 1994)

Not only is the capitalist spirit contrary to communism, but it may endanger China's relations with the United States and hinder efforts to maintain Most Favored Nation (MFN) status. Recent arms deals with Pakistan and Iran are gaining unfavorable international attention. The Chinese are accused of selling two dozen M-11 missiles to Pakistan in 1993, enraging U.S. officials. (Asian Defense Journal 1993) While it is unclear what the PLA's position was in these weapons deals, one would expect it was a major player.

In addition to undermining the Chinese government, the drive toward capitalism may also hinder the combat effectiveness of the world's largest army and endanger attempts at professionalization. According to Chong-Pin Lin, associate director of Chinese studies at the American Enterprise Institute, "the PLA's uncontrollable profit-seeking activities . . . will corrode its soldiers' combat spirit and weaken the effectiveness of operations." (Lin 1994)

The PLA also faces the loss of its brightest young officers to civilian corporations. These officers gain valuable experience in business and finance while in the army. Instead of becoming career officers, they leave the army for better paying civilian jobs.

Even corruption within the PLA is amplified by the organization's business aspirations. A lack of oversight by the central government has paved the way for fraud, smuggling rings and illegal enterprises. Corporations such as Xinxing, mentioned above, are required to give a specified percentage of their income to the General Logistics Department. In Xinxing's case, the "tribute" reportedly amounts to 30%. The remainder of the money is intended to support the unit that owns the enterprise. Officials believe that some of the PLA owned and operated enterprises are under reporting their income and using the extra funds to pay for luxury goods or bonuses for PLA officers and soldiers. In 1992 a GLD audit reportedly uncovered over 300 illegally opened bank accounts holding approximately Rmb 1 billion in unreported funds. (Far Eastern Economic Review 1993)

Smuggling is also a problem for Chinese customs officials. Their job is certainly not made easier when the smugglers are PLA officers and soldiers or are being escorted by Navy ships. In the mid-1980s Chinese naval personnel colluded with Hainan Island officials to smuggle more than US

$500 million in Japanese automobiles and Televisions into mainland China. (Far Eastern Economic Review 1993) The navy has also been accused of smuggling more than 2,000 buses and cars into the country from Russia and South Korea. It reportedly used a gunboat to thwart customs officials. (Joffe 1995)

As a result of special treatment granted PLA enterprises, businesses with phony PLA credentials have been popping up in the provinces. The owners of these illegal businesses hope to enjoy a wide spectrum of preferential policies and generous tax breaks offered to PLA enterprises. (UPI 1995) The PLA receives special treatment in the area of trade as well. Although not allowed to trade strategic items other than military wares, they can apply to trade quota goods and freely trade most other goods. (China Hand 1995) This may lead to hard feelings between the PLA and traditional business owners.

E. ATTEMPTS TO CURB PLA ACTIVITIES

Government officials and PLA leaders, well aware of these problems, have been attempting to shut down or curb PLA business activities. In 1989 the Central Military Commission (CMC) banned individual units from engaging in "pure business operations." This was done in the form of the 'ten no's.' The 'ten no's' are regulations published in an attempt to prohibit the PLA from engaging in a variety of activities.

The effected activities were either illegal or considered contrary to professionalization of the army by the CMC. (Joffe 1995) Even though the Commission has attempted to enforce the ban, it has had little success. (Bickford 1994) Deng Xiaoping made matters even worse in a 1992 country tour. During the tour, Deng "came down again, forcefully and unequivocally, on the side of reforms and blasted leftist opponents." (Joffe 1995) Deng's statement only served to reinforce PLA behavior. It weakened opponents to the PLA's involvement in the economy, those who want to develop a professional army, and it gave the PLA the "green light" to intensify its economic activities. (Joffe 1995)

Senior army commanders are also attempting to restrict large scale business to those at the regional military command level and those under the direct control of military authorities in Beijing. (Akita 1995) PLA leaders are even ordering active duty units from certain businesses. In June 1994, the 27th Army of Shanxi was ordered to turn over PLA owned mines in the region to civilians. The unit was compensated 1.3 billion yuan by Beijing for giving up the mines. (South China Morning Post 1994)

In an attempt to crack down on corruption, the Central Military Commission laid down guidelines for fiscal discipline and economic accountability. On 1 January 1995, the PLA Regulation on Auditing went into effect. The regulation provides for an auditing department to oversee the

activities of all PLA enterprises. (BBC 1995) The PLA's prominent position in the Chinese economy and its institutional interests in these business activities may make it difficult to manage. Government officials can only hope that these attempts to control the PLA and its vast industrial complex will succeed.

F. HONG KONG

Of final interest regarding the PLA's commercial activities is its relationship with Hong Kong. While PLA enterprises conduct business with Hong Kong and even own some prime real estate there, 1997 will open a new market to industrious PLA officials. In Hong Kong the PLA is currently only a sideline player, but it may soon move to center stage. Exactly how will this affect Hong Kong? No one really knows. The PLA must recognize the tremendous opportunity Hong Kong presents. It could reap billions of yuan from the huge plots of land that the British will leave behind. While the British have been relatively benign, the PLA may choose to develop old garrison land and muscle into the Hong Kong market. They may even consider themselves above the law and demand special privileges for their business interests. On the other hand, China may decide the best course of action in Hong Kong is a hands-off approach. I do not, however, believe that the PLA can control its capitalist urges. Unless restrained by the central government, the PLA is

likely to behave like the proverbial "kid in the candy shop" when it comes to Hong Kong.

G. CONCLUSION

In allowing the military to operate a wide range of businesses the PRC is making a significant trade-off. PLA ventures both help to fund modernization and to stimulate the Chinese economy. At the same time, however, they endanger efforts to professionalize the PLA. In addition, joint ventures between the PLA and foreign entities jeopardizes the central government's ability to control PLA forces. Senior PLA officials may not be willing to take military action against countries with which it has joint ventures and other economic ties even when ordered to by Beijing. Finally, the transition from military to civilian production is insightful. The government's willingness to allow these activities to continue seems to indicate that it places a higher priority on economic growth than the professionalization of its military.

IV. MODERNIZATION STRATEGY

Since the late 1970s and especially since 1989, China has worked to create a modern military. The modernization process includes four key elements: education and training of troops, reorganization of forces, research and development (R&D) and the acquisition of new weapon systems. In this chapter each of these elements will be discussed in detail in order to determine the primary goal of modernization. A review of specific weapon systems purchased by the military over the last several years will be especially useful in determining whether China is primarily concerned with defense of the "motherland" or with obtaining regional hegemony through force or threat of force.

A. EDUCATION AND TRAINING

In order to compete in the 21st Century, China had to change radically requirements for recruiting and training both officers and enlisted personnel. Since the establishment of the PRC, China emphasized a "people's war" strategy where every individual was expected to fight in defense of the nation. Educational requirements for soldiers fighting this type of war were minimal. As China developed and its strategy changed to one based on the use of advanced technologies, the need for an educated and better trained soldier arose. In accordance with the new doctrine,

education requirements for conscripts and volunteers began to increase in the early 1980s. At the same time a renewed emphasis was placed on military education and training.

Today, the PLA recruits most of its officer corps from among graduates of colleges and technical academies. Enlisted recruits are also being held to a higher standard than in the past. Men and women enlisting in urban areas are required to complete middle school (high school) and rural recruits must have at least a junior high education. Those enlistees selected for promotion to the officer ranks are required to attend "command" schools, from which they receive a degree, prior to commissioning. The PLA also worked to develop a noncommissioned officer corps (NCO) for those not selected for office training. (Godwin 1994) In addition to more stringent recruiting practices, the PLA is also revising its military training system.

In the fall of 1993 CMC Vice Chairman Liu Huaqing wrote an article emphasizing the importance of education and training in the modernization process. In the article, Liu stated that the PLA should "put education and training in a strategic position." (Huaqing 1993) During a session of the CMC in early 1994, the Chinese followed Liu's recommendation. The "conference gave crucial strategic place to intensified education and training to improve the army's mobile-response capability to cope with sudden incidents on modern terms...." (JPRS 1994) The PLA began to place greater emphasis on the

quality of its military academies and on professional military education.

The Chinese established the National Defense University in 1985. The University is a merger of the PLA Military Academy and the PLA Logistic Academy and is operated by the Central Military Commission. (Yoon 1988) The importance of military academy training is considered imperative in the PLA today. Those who do not have academy training cannot be promoted to the position of "cadres," a level of Communist Party membership required for advancement into higher ranks of the military and government. (Huaqing 1993)

An emphasis is also being placed on Professional Military Education (PME) and combined arms training. This revision was prompted by an acknowledged lack of experience in planning and troop employment in combined operations. Soldiers are now required to receive PME in designated schools prior to promotion. (Godwin 1994) In addition to PME and combined training, all chief officers are to receive higher education by the year 2000. (Yoon 1988)

B. FORCE STRUCTURE

In 1977 the Chinese military was organized in eleven military regions and divided into Main and Local Forces. Main Force divisions were commanded by the Ministry of National Defense and stood ready for operations in any region. Local Forces, on the other hand, concentrated on

defense of their own localities and included Border Defense and Internal Defense units. Infantry divisions dominated both Main and Local Forces. China's Main Force included 121 (out of 136) infantry divisions with only twelve armored divisions. Local Forces, which were almost entirely composed of infantry, totaled 70 divisions. The complete force numbered almost 4 million soldiers, sailors and airmen with the vast majority (3,250,000) in the army component. (IISS 1977) The large, predominantly infantry, force was essential to China's strategy of "People's War." Primarily a defensive force, the PLA was not capable of conducting protracted large-scale operations at any significant distance outside mainland China.

By 1981 PLA forces reached a numeric high with 4,750,000 soldiers, sailors and airmen. The army component remained the largest branch of the PLA with almost 4 million men while the navy and air components grew to 360,000 and 490,000 respectively. This represented an increase of 60,000 sailors and 90,000 airmen from the previous period. (IISS 1981) The number of soldiers, however, was reduced drastically the following year to 3,150,000. A reorganization program implemented by the PLA in 1982 probably accounts for this drastic reduction in force size. (IISS 1986) The navy and air elements of the PLA remained at their 1981 peak, possibly as a result of China's new emphasis on naval and air forces. (IISS 1982)

Several other changes were made over the next few years as well. China's 1985 change in strategy prompted a series of modifications in force structure. The Regional Army was reorganized into seven Military Regions and Field Armies were redesignated as 'Group Armies.' Group Armies unified infantry, armor, artillery, air defense and support assets under one commander. (Henley 1988) The Military Regions were intended primarily to serve an administrative function in peacetime and as Fronts or Strategic Sectors in wartime. Command of Main Force divisions would shift from the General Staff at the Ministry of National Defense during peacetime to Front or Strategic Sector Commander's during war. (IISS 1986) This shift seems to represent a decentralization of command authority for wartime operations.

To support the new strategy of limited, high-tech warfare, the PLA developed "fist" units. Fist forces are roughly equivalent to special forces in the United States. These units are small, well-trained combat forces trained to fulfill four major functions.

> As "door openers" striking at critical targets and widening a breach in the enemy's position; as a "scalpel" to strike at targets that when destroyed will paralyze an enemy's combat potential; as "steel hammers" to seize crucial enemy positions; and as "boosters" to speed up the tempo of an operation by opening up new battle areas within the invaded area. (Godwin 1994)

Each of the seven military regions has its own "fist" units trained for contingencies specific to its local situation and potential adversaries. (Godwin 1994)

The new concept shifted the PLA's emphasis to fighting with advanced technology weapons. It soon became apparent that the military could not afford to both build a high-tech force and continue to support its four million troops. As a result, in 1985 the decision was made to reduce the number of soldiers from four million to three million in two years. (Yoon 1988) The cut was not completed, however, until 1989. In that year the *Military Balance* reported the PLA at 2,300,000 soldiers, 260,0000 sailors and 470,000 airmen. At the same time the ratio of infantry divisions to armored divisions drastically changed. By 1995 China's Main Force had dropped to 82 infantry divisions (including nine rapid response divisions) while the number of armored divisions remained approximately the same at eleven divisions. (IISS 1995) Furthermore, reports indicate that the PLA will be cut by another 500,000 in the next few year resulting in a total end strength of around 2.5 million. (Asiaweek 1996) It seems probable that future reductions will also concentrate on infantry divisions. While the infantry will always play a major role in the PLA's force structure, it is becoming less important in the era of high-tech warfare.

C. RESEARCH AND DEVELOPMENT

China is currently lagging behind the United States in military technology. Their primary weakness is in Command, Control, Communications and Intelligence (C3I), electronic warfare, precision guided munitions and jet engine design. (Yoon 1988) While China is developing rapidly, it is still plagued by "low levels of industrial modernization and limited technological sophistication." (Yoon 1988) Without advances in these areas China will not be able to build a modern force without significant assistance from more advanced nations.

The need for a modern force based on high-tech systems was made painfully clear to the PLA during the Gulf War. The rapid defeat of Iraq by the United States sent shock waves throughout China's military leadership and highlighted the need for a modern military. Most of China's current force, like Iraq's, is based on designs and technology from the 1950s and 1960s. Modernization depends on the efforts of a small number of highly qualified scientists and technicians to bring China's base capabilities up to par. A shortage of qualified scientists and engineers, however, has forced Beijing to concentrate the majority of its best people in select high-priority projects. (Yoon 1988) Fiscally constrained, the PLA has been focusing on high priority breakthrough points rather than concentrating on an all-round buildup. The high-tech drive by the military is viewed by

many as a driving force behind the development of science and technology for the whole nation. (Ji 1995)

C3I, space-based systems and the development of precision guided missile technology, high speed computers, artificial intelligence and electronic warfare (EW) systems are at the core of China's R&D efforts. The military is taking a middle of the road approach to its development strategy which lies between steadily upgrading of older equipment and leaping to the next generation of systems for select units such as the elite "fist" units. (Ji 1995) A major objective of defense modernization is to build an R&D base that will allow China to develop and manufacture advanced technology weapon systems that can compete with those in the west. China's R&D program includes technology for both power projection and for defense.

D. ACQUISITIONS

In addition to the improvements discussed above, the PLA must also update its weapon systems and equipment. Three possibilities exist for obtaining advanced weapon systems. The Chinese have the option of purchasing advanced weapons on the foreign market, reverse-engineering existing technologies or indigenously developing new weapon systems. The quickest way for China to achieve a modern military is by purchasing advanced weapon systems on the foreign market. The PLA, however, does not have the fiscal means to modernize in this

manner. China is well aware that the Soviet Union's collapse was partially the result of military expenditures taking priority over economic modernization. For this reason, the "Four Modernizations" place military modernization behind economic modernizations, inhibiting the PLA's ability to purchase the latest systems from abroad. Even if China had the money to purchase weapons on the open market, it is historically predispositioned toward self-reliance. Self-reliance became even more important following the Sino-Soviet split in 1960. Throughout the 1950s the Soviets assisted the Chinese in developing a nuclear program. This assistance came to a sudden halt when ideological differences developed between the two states. China is therefore very wary of having to depend on foreign powers for its defense and military equipment.

In view of China's fiscal constraints and predisposition toward self-reliance, indigenous production would seem to be the most likely method of military modernization. This, however, is impossible. China lacks the industrial base and scientific knowledge to build technologically advanced weapons.

As a result, China has chosen to modernize it military by employing all three methods. It is buying a limited number of advanced weapons from Russia in a stop-gap effort. It is also attempting to reverse engineer some high-tech systems and indigenously develop others.

In this section I will analyze weapons systems purchased for the army, navy, air force and the strategic component of the PLA since 1977 with an emphasis on purchases since 1989. In order to determine the speed and extent at which the PLA is modernizing I have conducted a longitudinal study of China's order of battle, as reported in the *Military Balance*, from 1977 to the present. The most recent information on military acquisitions is drawn from a number of other sources as well.

1. People's Liberation Army-Ground Forces

From 1977 to 1989 the army element of the PLA relied heavily on infantry soldiers for China's defense. The few armored divisions (varying between 10 and 13 divisions) were equipped with 1950s and 1960s technology. These divisions operated Soviet-built IS-2 hy, T-34 and Chinese Type 59/-63 medium tanks, Type 60 (PT-76) amphibious tanks and Type-62 light tanks. (IISS 1977) Throughout the 1980s the army concentrated on purchasing trucks and transports vice modernizing its more advanced equipment. Emphasis seems to have been placed on increased mobility, structural changes and professionalization.

The army began updating its tank force in the late 1980s. Type-79 and Type-80 tanks were added to its inventory in 1989 and Type-85s were added in 1992. (IISS 1989, IISS 1992) China has also "reportedly purchased a limited number

of T-72s from Russia and is negotiating to obtain other advanced technologies and coproduction rights for advanced munitions and weapons." (GAO 1995) In addition, China and Pakistan signed an agreement in 1990 to cooperate in the development of a "state of the art" Main Battle Tank (MBT). It is believed that Pakistan will mainly serve as a technology conduit to Beijing. China is also suspected of submitting designs for a new MBT to Vickers, a British firm with experience in designing tanks. (Bain 1994) The incorporation of foreign technologies into a new generation of Chinese tanks has the potential to improve significantly the PLA's existing armored force.

In addition to improvements in heavy armor, the PLA has introduced two new armored personnel carriers (APC) and invested in the development of new anti-tank guided missiles (ATGM). (Bain 1994) They are also producing M-9 (CSS-6/DF-15) and M-11 (CSS-7/DF-11) solid-fueled, mobile surface-to-surface missiles (SSM) with ranges of 350 miles and 180 miles, respectively. (Bitzinger and Gill 1996) A follow on to the M-9 and M-11 may be in the developmental stage. (Lennox 1996)

2. People's Liberation Army Navy (PLAN)

The navy and air components of the PLA composed only about one-seventh the size of the total force in 1977. The navy, at 300,000 sailors, operated 22 major surface

combatants including 6 Luda-class destroyers, 4 Soviet Gordy-class destroyers and 12 frigates (including 4 Soviet Riga-class). The destroyers and the four Riga-escorts were armed with Styx SSMs. The navy also employed an impressive submarine force with 66 attack submarines (36 Soviet Romeos, 21 Soviet Whiskeys and 2 Chinese Ming-class) and one Soviet Golf-class submarine with SLBM tubes (probably no missiles). (IISS 1977) While the number of combatant surface ships was relatively small for a country with such a large coastline, the submarine force was formidable. However, it did lack the nuclear-power and ballistic-missile capability of the Soviet Union and United States.

The Chinese navy also operated a number of non-combatants including patrol escorts, submarine chasers, missile craft, minesweepers and amphibious landing ships. A number of smaller (under 100 tons) vessels were maintained for coast and riverine defense. (IISS 1977) The navy remained a predominantly defensive force lacking the facilities and logistic support for power-projection and sustainment of forces outside the waters immediately adjacent to the Chinese mainland.

Throughout the 1980s the navy's modernization was slow and incremental. As the Chinese began to realize the importance of sea power it increased the size of the navy by 20 percent to 360,000 sailors. While the number of combatant surface ships was slowly increased, more emphasis was placed

on the submarine force. In 1978 the first Han-class nuclear -powered submarine was added to China's order of battle. The attack submarine force was rapidly expanding, more than doubling in the next decade.

By 1986 the Chinese were operating 46 major surface combat ships. The navy had slowly increased the number of Luda-class destroyers from six to eleven ships each carrying 2 triple HY-2 SSM. The number of frigates was expanding more rapidly. The number rose from twelve to thirty-one in eight years. The majority of these were Type-037 Jianghu and Type-053H mod Jianghu equipped with HY-2 SSMs.

The submarine force expanded rapidly in the early 1980s increasing to 118 boats by 1986. (IISS 1986) In that year, the navy was operating three Han-class nuclear-powered submarines equipped with 6 SY-2 cruise missiles with a reported range of 1,600 km. (IISS 1984) It was also operating 113 conventionally powered attack boats the majority of which were Soviet Romeo-class. The number of Romeo attack submarines had increased from 36 in 1977 to 90 in 1986, a significant escalation. Perhaps the most significant addition to China's fleet, however, was the addition of the first nuclear-powered ballistic submarine, the Xia-class, in 1985 (launched in 1981). The Xia was loaded with 12 CSS-NX-4 submarine launched ballistic missiles (SLBM) with a range of 2,200 to 3,000 km. (IISS 1985) The incorporation of these boats into the navy's order of battle

gave China a sea leg for its strategic forces. The addition of a subsurface, mobile component greatly increased the viability of the force.

The number and quality of patrol boats, missile craft and amphibious ships were also slowly increased in the early 1980s. In the mid-1980s the Chinese navy initiated a program of new ship construction. Admiral Liu Huaqing envisioned a program based on indigenous designs that incorporated Western technologies. (Caldwell 1994) Several new classes of ships were developed and built as a result. Luhu and Luda III-class destroyers, Jiangwei-class frigates, Dayun-class resupply vessels and Houjian and Houxin-class missile patrol craft were all placed in service in the early 1990s. (Caldwell 1994)

The addition of the Luhu and upgraded Luda (Luda III) class destroyers along with the Jiangwei-class frigate represent a significant improvement to the navy's surface combat fleet. The Luhu was launched in 1991 and placed in service in 1993. (Caldwell 1994, Bain 1994) Its "General Electric gas turbine engines vastly improve range and speed . . . (while) enhanced missiles and French gunnery and helicopters increase the firepower of the class." (Bain 1994) Its missile systems include C-801 surface-to-surface missile (SSM) launchers and a Crotale surface-to-air missile (SAM) system. The Luhu also operates two Z-9A (French Dauphin)

helicopters. (IISS 1995) Currently only one Luhu is operational but three more are planned. (Caldwell 1994)

The improved Luda-class ships (Luda III) also carry the solid-fuelled C-801 SSM launchers. These are less dangerous and cumbersome than the liquid-fuelled ones installed on previous models. The Luda III is also better suited for antisubmarine warfare (ASW) than previous ships in its class. For power-projection, the vessel is able to operate at a range of 4,790 km without refuelling. While the Luda III is an improvement over previous Luda class destroyers, it lacks a surface-to-air missile system and probably has limited command and control capabilities. (Caldwell 1994) It may, however, eventually carry the CY-1 anti-submarine missile. The CY-1 is still in the developmental stage but has been seen fitted to Luda III destroyers. The missile has a range of 18 km and carries a torpedo warhead. (Lennox 1996) As of mid-1995 only two Luda IIIs had been built. (Swaine 1996) The remainder of the Luda-class ships are still of the obsolete Luda I and II versions.

The fourth Jiangwei-class frigate was commissioned in 1995. This class also carries C-801 SSM launchers and operates one Z-9A helicopter. (IISS 1995) Over eighty percent of China's frigates, however, are the older Jianghu-class operating with upgraded equipment.

China's purchase of the French SAM system increases the PLAN's ability to provide air defense for its surface ships.

At the same time, the addition of Dauphin helicopters and the FQF-2500 ASW rocket system increased the PLAN's ASW capability. (Yung 1996) Despite these improvements, PLAN combatants are still antiquated by western standards. The majority of surface combatants have not been upgraded with the new AAW weapons and thus remain vulnerable to air attack.

China's submarine fleet is also continuing to improve. The PLAN's current submarine fleet consists of one SSBN (Xia), five nuclear-powered attack submarines (Han), one guided missile boat (mod-Romeo) and 45 conventional attack submarines. Many of the old Romeo-class boats have been placed in a non-operational status leaving 33 active. Meanwhile, the Chinese have continued to increase the number of improved Ming submarines and have purchased four Kilos from the Russians. (IISS 1995) Only two Kilos have been delivered to date, however. (Swaine 1996) The PLAN has also developed a new type of submarine to replace the Romeo and Ming class boats. The Song-class is built indigenously but incorporates advanced western technologies. Its skewed seven-bladed propeller and hydrodynamic hull give the Song a degree of stealth not found in other Chinese submarines. (Yung 1996) Its effectiveness against the advanced ASW capability of western nations, however, is still to be determined. The first hull of this class was launched in 1994. (Swaine 1996)

While China's recent submarine acquisitions appear impressive, Christopher Yung of the Center for Naval Analysis (CNA) argues that a number of factors reduce the effectiveness of China's submarine force. First, most Chinese submarines still operate with sonar derived from Soviet designs of the 1950s. Second, the operational readiness of the submarine fleet is questionable, at best. The lack of properly trained sailors restricts the PLAN from operating most of its submarines for more than a few days a year. Finally, with the possible exception of the new Song-class boat, Chinese submarines are noisier than western submarines and the absence of air-independent propulsion requires frequent snorkeling. (Yung 1996) While the Chinese submarine fleet may be effective against other Asian navies, its ability to survive the ASW sensors and weapons of more advanced navies is probably very limited.

Other additions to China's order of battle in recent years have been Houxin-class missile craft and Yukan and Yuting-class landing ship, tank (LST). (IISS 1995) The missile craft, although an asset to defense and coastal patrol forces, do not increase the PLAN's ability to project power. The addition of the new LST classes have a greater troop carrying capacity than the older classes of amphibious ships, but China's ability to transport and sustain troops away from the Chinese mainland is still very restricted.

It is also important to note that China has a naval air force and a naval infantry (marines). Although there has been sporadic discussions about acquiring an aircraft carrier, the Chinese have yet to do so. This hesitation is most likely based on the cost of such a purchase. In October 1996 the Far Eastern Economic Review reported that "France is seriously considering a Chinese request to buy the 35-year-old carrier Clemenceau . . .." (Chanda 1996) A former French government official was quoted as saying ". . . we are ready to sell the Clemenceau for nothing provided we do the refitting of the vessel." (Chanda 1996) Without an aircraft carrier the majority of PLAN aircraft are shore-based. The latest *Military Balance* reports the Naval Air Force at 25,000 airmen operating 855 shore-based combat aircraft and 68 armed helicopters. The bomber force includes some 25 H-6 and H-6D aircraft and about 130 H-5 torpedo carrying light bombers. The navy also has about 100 Q-5 ground attack aircraft and some 600 fighter (J-5/-6/-7/-8). It is also developing a twin-engine fighter-bomber, the FB-7. The FB-7s primary mission is interdiction and it is expected to carry two C-801 ship attack cruise missiles and two drop tanks. (Allen, Krumel and Pollack 1995) For ASW the PLAN maintains 15 Soviet Be-6 Madge and a number of ASW helicopters. (IISS 1995) These aircraft will be discussed in more detail in the PLAAF section.

The Marine component of the PLAN includes approximately 5,000 troops operating T-59 main battle tanks and T-60/-63 and PT-76 light tanks.

3. People's Liberation Army Air Force (PLAAF)

The air force component of the PLA, like the navy, began slowly modernizing its forces in the late 1970s. In 1977 the air force numbered 400,000 airmen and approximately 5,200 combat aircraft. The bomber force included 80 Soviet designed Tu-16 and a few Tu-4 medium bombers and around 400 Il-28 and 100 Tu-2 light bombers. The fighter force consisted of 600 MiG-15 and Chinese designed F-9s along with approximately 4,000 Mig-17/-19 and 120 MiG-21s. In addition, the air force operated around 450 fixed wing aircraft and 350 helicopters.

Twenty years later, the PLAAF continues to rely on obsolete versions of Soviet designed aircraft. However, the Chinese have made a few improvements to its air force and future plans are ambitious. Most of the air order of battle is still composed of Chinese versions of MiG-17, MiG-19 and MiG-21 fighters as well as the old Tu-16 bomber. These aircraft are designated J-5, J-6, J-7 and H-6, respectively. (Swaine 1996) While the Chinese produced more than 1060 J-5s (MiG-17) only 400 remain in the PLAAF's inventory today. (Frawley and Thorn 1995, IISS 1995) The Russian MiG-17 was designed to overcome design and performance shortcomings of

the MiG-15. The first prototype flew in February 1950 with the first Chinese-produced aircraft reported operational in the fall of 1956. (Frawley and Thorn 1995, Allen, Krumel and Pollack 1995) The J-5 served as China's primary interceptor until the late 1960s when it was replaced by the J-6. (Allen, Krumel and Pollack 1995)

The Chinese obtained a license to produce the basic MiG-19 (J-6) in the late 1950s. The first Chinese assembled aircraft, built by the Shenyang Aircraft Factory, first flew in December 1958 while the first Chinese built MiG-19 flew in September 1959. (Frawley and Thorn 1995) Most of the aircraft built before production ceased in the early 1980s are still in the Chinese inventory including all-weather and reconnaissance variants. (Allen, Krumel and Pollack 1995) Three-quarters of the current Chinese fighter force, approximately 3,000 aircraft, is composed of J-6s.

The base J-7 (MiG-21) is also based on 1950s Soviet technology. The first Soviet/Chinese aircraft were limited to day operations of short range and endurance. As a result, the Chinese almost abandoned the program in the late 1970s. A decision to retain the program, however, was made based on lessons learned from the border war with Vietnam and stolen plans for the Soviets later-model day and all-weather MiG-21s. An improved model, the F-7-2, included a more powerful engine and external fuel tank capability. In the early 1980s further improvements were made based on the all-weather

capability of the MiG-21pf. This variant is designated the F-7-3. (Allen, Krumel and Pollack 1995) China will probably continue serial production of the J-7 and the more advanced J-8 fighter. (Bitzinger and Gill 1996)

The PLAAF operates about 100 J-8/J-8 II fighters and more than 400 low-performance Q-5 ground attack aircraft. (IISS 1995) The J-8 interceptors are based on 1960s technology and are similar to the MiG-21 in overall configuration. The improved version of the aircraft, the J-8 II, has a secondary ground attack role. The J-8 II was scheduled to be fit with U.S. avionics and other improvements, but the program was suspended after the 1989 Tiananmen Square massacre. (Frawley and Thorn 1995) The J-8 II is reportedly scheduled to be upgraded with Russian fire control radars in the near future. (Cook 1996)

The Q-5 is a close air support/ground attack fighter developed from China's MiG-19 copy. The longer range Q-5 I has extra fuel in place of the internal bomb bay and the Q-5 II is fitted with a radar warning receiver. (Frawley and Thorn 1995)

China's attempt to modernize the PLAAF fighter force was extremely weak throughout the 1970s and 1980s. It primarily relied on upgrading existing aircraft models with more advanced technology, although it was rarely the latest technology available. A more serious attempt to update China's fighter force began in the early 1990s with the

purchase of 26 Russian Su-27 Flankers. The Flanker is an extremely maneuverable fighter with a long range capability, a large missile armament and modern radar and sensors. (Frawley and Thorn 1996) China is also reportedly seeking to purchase an additional 46 Su-27s enough to give the PLAAF 72 Flankers, three regiments worth. (Bain 1994) Recent reports indicate that Moscow has even agreed to sell the license to produce the aircraft to the Chinese. (Campion 1996, Ching 1996)

In addition to the Su-27 purchase, China is also funding two major combat aircraft development programs, the FC-1 and the J-10. The FC-1 is based on a Soviet program to "develop an F-16 like, single-engine version of the MiG-29, known at the time (the mid-1980s) as the MiG-33." (Cook 1996) While the Soviets ultimately rejected the MiG-33 design, the Chinese are using it as a building block for the FC-1. Unlike previous Chinese built aircraft, the FC-1 incorporates the most advanced technology available on the world market. Much of the avionics is being solicited from Europe and Israel. The aircraft's maiden flight is expected next year and it is expected to enter service at the turn of the century. The FC-1 will most likely serve as a replacement for aging Q-5, J-6 and J-7s. (Cook 1996)

The PLAAF is also developing a next-generation combat aircraft, the J-10. The J-10 is a cross between the U.S. F-16 and the Israeli-built Lavi. The aircraft will have a

head-up display, radar for beyond-visual-range combat and radar provisions for radar-guided, air-to-air missiles. A prototype is expected to fly within the next year or two with initial operations in ten years. (Fulghum 1995) The J-10 will most likely complement the Su-27s and F-8 II interceptors.

Like China's fighter force, the PLAAF bomber force is also outdated. The latest *Military Balance* reports that China has 120 H-6 (Tu-16/B-6), some of which may be nuclear capable) and over 300 H-5 (IL-28/B-5) bombers. Both of these aircraft are built on Soviet 1950s technology. Some of the H-6s carry C-601 cruise missiles and some of the H-5 carry C-801 ASM. (IISS 1995) An air-launched cruise missile program is reportedly in the early stages of development. The missile, when developed, will be carried by the H-6. (Lennox 1996)

One final addition to the PLAAF is worth mentioning, the purchase of fifteen Ilyushin 76M (IL-76) transport aircraft from Uzbekistan. (IISS 1995) These aircraft increase China's mobility and lift capabilities which will enable rapid deployment of forces. Analysts speculate that the IL-76M may also be used as electronic warfare or aerial refuelling platforms. (Caldwell 1994)

4. Strategic Weapon Systems

a. Offensive

The missile arm of the PLA is controlled by the Second Artillery. In 1977 both the offensive and defensive weapons of the Second Artillery were very limited. The offensive component was composed of 30-40 CSS-2 Intermediate Range Ballistic Missiles (IRBM) and 30-40 CSS-1 Medium Range Ballistic Missiles (MRBM). The MRBMs had a range of approximately 1,800 km and a yield of 15 KT while the IRBMs were capable of a 2,500 km range and 1-3 MT. In 1976 China's first multi-stage Intercontinental Ballistic Missile (ICBM) had been tested but was not yet in service. The missile had a limited range of 6,000-7,000 km but a longer range missile was being reportedly developed. (IISS 1977)

In addition to these missiles, the Chinese could also use its Tu-16 medium bombers as delivery platforms. Each bomber had a radius of action of approximately 3,000 km. Although the Chinese had a Golf-class submarine with missile launch tubes, it didn't have missiles for the boat. (IISS 1977)

In 1979 the first ICBM was introduced into service. Two of the limited range CSS-3s (1-3 MT) were deployed while the longer range version was still in the development phase. At the same time, the number of CSS-1s and CSS-2s had increased by ten and twenty missiles, respectively. (IISS 1979) Two more CSS-3s were deployed the following year along

with 10-15 additional CSS-2s. (IISS 1980) The long range (13,000 km) ICBMs were finally deployed in 1982 along with a variant of the IRBM. In addition to having a longer range, the new ICBM was more powerful (5 MT) than the previous model. (IISS 1982)

The development and deployment of long range ICBMs was considered crucial to the development of China's strategic force. Perhaps a more significant development, however, was the deployment of the first Chinese nuclear-powered ballistic missile submarine (SSBN), the Xia. The Xia, equipped with 12 CSS-NX-4 missiles, was first reported to be conducting trials in 1982/1983 and was probably deployed in 1985. (IISS 1982, IISS 1985) To date, this is the only SSBN in operation. The introduction of the submarine into China's order of battle added a third leg to its strategic force, a leg that was less vulnerable than either aircraft or land sites.

China continued to upgrade its strategic force, concentrating on the land leg, throughout the 1980s and early 1990s. Solid propellants were first reportedly used to fuel an ICBM test vehicle in 1980 and in 1985 a CSS-4 was tested with a multiple warhead. (IISS 1987) According to the *Military Balance 1995/96,* China currently has its missile force divided between six army bases and the Xia submarine. Its inventory includes approximately 7 CSS-4 (DF-5) and 10+

CSS-3 (DF-4) ICBMs, 60+ CSS-2 (DF-3) and about 10 CSS-5 (DF-21) IRBMs and 12 CSS-N-3 (J-1) on the Xia. (IISS 1995)

The Chinese are currently working on several strategic missile projects. A mobile ground-launched IRBM, the DF-25, is believed to be in development with an expected in service date of 2000. The missile is reported to have a range of 1700 km and a 2,000 kg warhead. The Chinese are also reportedly developing the DF-31 mobile intercontinental-range ballistic missile. This missile has been in development since the 1970s with a major design change in 1985. The DF-31 has a 8,000 km range and a single nuclear warhead with an expected yield of 250 KT. It is expected to be in service in the very near term. Finally, the Chinese are developing a ICBM with an expected range of 12,000 km. It will have either a single nuclear warhead or three MIRVs with yields of 250 KT and 50-90 KT (per warhead), respectively. The DF-41 will probably enter service sometime between 1998 and 2000. (Lennox 1996)

b. Defensive

China's air defense system, in 1977, relied on about 4,000 air force and naval fighters, 100 CSA-1 (SA-2) and 10,000 anti-air (AA) guns. The system was only "capable of providing a limited defense of key urban and industrial areas, military installations and weapon complexes." (IISS 1977) By the early 1980s China had tracking stations in

Xinjiang (to cover central Asia) and Shanxi (northern border) and a limited shipborne capability. It also had a ballistic missile early warning phased-array radar complex. (IISS 1983) The air force also began operating an Over-the-Horizon-Backscatter (OTH-B) radar system. The system had a range of 700-3,500 km and a 60 degree arc of cover. (IISS 1987)

China's current inventory of defensive weapons includes HQ-2, CSA-N-2 (HQ-61), FM-80 (HQ-7), KS-1 and SA-10 (S-300). (Lennox 1996) The KS-1 and S-300 are the two most recent addition to China's defense force. The KS-1 is a medium-range SAM first revealed in 1991. It has a range of 42 km, operating ceiling of 25 km and speed of Mach 4. The KS-1 will probably be the major medium-range SAM system in the future. (Jane's Defense Weekly 1995)

According to a study published by the RAND corporation, "The SA-10 is a state-of-the-art air defense system available in transportable and self-propelled versions with three different missiles." (Allen, Krumel and Pollack) The SA-10, which is comparable to the U.S.-built Patriot system, has a range of 100 km against aircraft and a limited ability to intercept ballistic or cruise missiles. (Caldwell 1994) The addition of the SA-10 represents a marked improvement in China's ability to defend itself.

E. CONCLUSION

Since Deng Xioaping announced the implementation of the "four modernizations" in 1978, China has slowly been modernizing its military. Initially, the modernization consisted mainly of upgrades to existing equipment. China's change in strategy in 1985 resulted in a massive reduction in force size and restructuring of the military but did not significantly improve the quality of the PLA's weapon systems. In the late 1980s and early 1990s, however, changes in China's strategic position and shock over the Gulf War reinvigorated the modernization process. Significant improvements in China's weapon systems began during this period.

It is important to note that the Chinese seem to be concentrating on modernization of the PLAN. The commissioning of a new class of frigate, a new class of destroyer and new classes of landing ships, purchase of four Kilo class submarines and negotiation for a French aircraft carrier indicate that the Chinese are attempting to increase their power projection capability. In addition, the purchase of Su-27 aircraft for the PLAAF also increases the reach of China's military.

The move toward a blue water navy is probably aimed at protecting China's claimed territory in the South China Sea. Currently, the Chinese are not capable of sustaining a forward deployed force for more than a short period of time.

Thus, while China may be capable of seizing reefs in the South China Sea, it is probably not capable of defending them. I also suspect that China would not be capable of invading Taiwan if an invasion were deemed necessary. The PLAN does not appear to have adequate sealift for such an effort. The lack of a blue water navy may not only impede China from acting to protect its interests, it also may be a source of humiliation, especially in a time where other Asian nations are expanding and improving their navies.

While China has placed an increased emphasis on military modernization in the last few years, its military capability remains an estimated 15-20 years behind the United States. In spite of its efforts to develop a blue water navy, the PLA is still primarily a brown water navy.

The Chinese are also attempting to increase their air capability. The purchase of Su-27s by the PLAAF as well as development of the J-10 will give the air force a more modern capability. Despite these advances, the PLAAF is still mainly operating aircraft of 1950s and 1960s design. The majority of its fighter aircraft are J-6s (MiG-19) which the Chinese have been producing since the late 1950s. Its bomber force, which is also based on 1950s technology, is similarly outdated.

In addition to shortfalls in the air and naval forces, China lacks credible C3I, electronic warfare and precision guided capabilities. Each of these capabilities is necessary

to create a modern military force. In spite of current deficiencies, it is possible that with continued economic growth China will be able to make great strides in improving its military capability. Purchasing advanced technologies and weapon systems from foreign sources, China could rapidly advance all of its forces.

This examination of China's military modernization highlights the PLA's capabilities and may give some insight into its intentions. Analysis of PLA deployment patterns over the last two decades and recent military exercise activity should enable a more indepth understanding of China's intentions.

V. FORCE DEPLOYMENTS AND MILITARY EXERCISES

A. INTRODUCTION

PLA forces were divided among eleven military regions (MR) until the mid-1980s when they were consolidated into seven regions. Naval forces, on the other hand, have always been divided between three fleets, the North, East and South Sea Fleets. In this chapter I will analyze Chinese force deployments to these military regions (MR) and naval fleets over a 20 year time span. I will also examine PLA field exercise training conducted in 1995 and compare the location, type and number of those exercises with similar exercises conducted the previous year. Military regions with large troop concentrations indicate that the Chinese are concerned about security in these areas. Regions with fewer PLA divisions seem to suggest that the Chinese do not have the same level of concern about these areas. The same logic applies to the number and type of military exercises. A concentration of forces combined with increasing exercise activity in a particular MR may indicate that the Chinese have intentions of using these forces. By observing changes in deployment patterns it may be possible to determine areas at risk of PLA aggression.

B. FORCE DEPLOYMENT AND FIELD EXERCISE ACTIVITY

The information on force deployments in this section was collected from editions of the *Military Balance* covering the years 1980 through 1996. It is important to note that the Local Forces (LF) included in the PLA inventory between 1980 and 1985 were no longer considered PLA forces after the military reorganization that began in 1985. While these forces still exist, they will not be included in force deployment data subsequent to 1985.

This chapter examines PLA deployments based on the current seven MRs. Those MRs that were absorbed by other regions in 1985 will be included in the data for the absorbing region. In most cases the regions combined to form the new MR is clear. It is not clear, however, exactly how the PLA disposed of forces belonging to Wuhan MR prior to 1985. Most likely they were divided between Jinan and Guangzhou MRs.

The information on field exercise activity is based on open source Chinese media articles published by the Army paper and other state controlled media.

1. Beijing MR

Beijing MR is adjacent to the south-eastern portion of Mongolia and responsible for defense of China's capital. In 1980 more forces were concentrated in this MR than in any other section of China. A total of 28 infantry, five armored

and 12 LF divisions defended Beijing. (IISS 1980) The deployment of such a large number of troops along the Mongolian border indicated that China was very concerned with Soviet intentions in the late 1970s. In view of the tensions between the two nations following the Sino-Soviet split it seems reasonable that China would make the China-Mongolian border and defense of Beijing its main priority.

While the Beijing MR was significantly reduced as a result of manpower cuts in the mid to late 1980s, it still harbors the largest number of active PLA divisions. The last report analyzed, 1995/96, indicates that a total of two armored, 20 infantry and two artillery divisions currently are stationed in the Beijing MR. (IISS 1995)

As for the number of field exercises conducted in the Beijing MR, reports indicate that the PLA only conducted one Group Army (GA) exercise and five Division-level field exercises in 1995. In the GA exercise, which took place between mid-June and August, an unidentified GA moved forces from the sea, north of Beijing and into inner Mongolia to the Gobi desert. (DIA 1996)

The number of exercises in the Beijing MR was markedly reduced from the previous year. In 1994 "the Chinese media reported on five GA, eight Division, one Brigade, and two Regiment-level field exercises by Beijing MR units." (DIA 1996) The one major field exercise seems to be aimed at defending against a Russian attack through Mongolia. The

decrease in activity in the Beijing MR is most likely due to a continuing reduction of tension between China and Russia following the break-up of the Soviet Union.

2. Chengdu MR

Chengdu MR is located on China's southern border adjacent to Nepal, India, Burma, Laos and Vietnam and represents a consolidation of the former Chengdu MR and Kunming MR. By 1980 Chengdu supported a total of nine infantry divisions and five LF divisions, while Kunming had six infantry and five LF divisions. (IISS 1980) This concentration of forces in Chengdu and Kunming probably was in response to border conflicts with India and tensions between China and Vietnam prior to and during the 1979 war.

The number of divisions stationed in south/south-western China was reduced significantly in 1989. The *Military Balance* reports Chengdu with 10 infantry divisions in that year. The number of divisions continued to decrease over the next few years with the latest data reporting one artillery and seven infantry divisions in Chengdu MR. The reduction in troop concentration in this region is most likely due to a combination of events. It is, no doubt, partially the result of personnel reductions and it is also probably the result of decreasing tensions with Vietnam and India. An agreement signed by China and India in November 1996 is evidence of the reducted anxieties between the two

states. The agreement calls for partial demilitarization of the border and reaffirms that "neither side shall use force against the other by any means or seek unilateral military support." (CNN 1996)

Open sources report that Chengdu MR units conducted two GA, four Division, one Brigade and two Regiment-level field exercises in 1995. Exercises conducted in the region included river-crossing and beach-seizing exercises, an air corps surprise attack exercise and cold-weather training involving an offensive by high-tech combined arms forces. The number of GA and Division-level exercises conducted in 1995 represented a doubling of activity from the previous year when units in the region conducted only one GA, two Brigade and one Regimental-level exercise. (DIA 1996) The reason for this increase in 1995 is unclear. As discussed earlier, Chengdu MR borders India and Vietnam. While tensions between China and these two nations have been reduced in the past few years, China may still consider them a threat. Another possibility is that the increased training is intended to ready forces to counter ethnic unrest in western China.

3. Guangzhou MR

Guangzhou MR is located on China's southern border adjacent north-eastern Vietnam and looks south to the South

China Sea. In 1980 this MR supported 12 infantry and 11 LF division, ranking third of the 11 military regions in number of deployed troops. (IISS 1980) The concentration of forces in Guangzhou, like in Chengdu, was most likely in response to tensions between China and Vietnam prior to and during the 1979 War.

The number of divisions stationed in Guangzhou remained steady through the mid-1980s, but was increased to 17 infantry divisions in 1985. (IISS 1985) This was probably the result of the MR absorbing part of the former Wuhan MR. The number began to decrease in 1989 as military cut-backs took effect. Currently Guangzhou has only six infantry divisions and three air divisions (Air Force). (IISS 1995)

Despite the reduction in forces stationed in the Guangzhou, the most significant increase in exercise activity between 1994 and 1995 took place in this MR. The region borders Vietnam but perhaps more indicatively, it faces the South China Sea and the disputed Spratly Islands. In 1995 units in the region conducted two GA exercises, four division and two Brigade exercises as compared to only one GA, one division and one Brigade-level exercise in 1994. Some of the exercises "practiced swimming and beach landing drills and rehearsed island-seizing operations." (DIA 1996)

4. Jinan MR

Jinan MR is located just to the south of the Beijing MR across the Yellow Sea from North Korea. In 1980 the region supported eight infantry, three LF and one armored division. The number of divisions only slightly increased in 1985 as the MR absorbed part of Wuhan MR. (IISS 1985) A more significant increase was reported in 1992 when the number of divisions increased to thirteen infantry, two armored, one artillery and one air division. (IISS 1992) The reason for the increase at that particular time is unclear, although Jinan still retains that level of forces. (IISS 1995)

Meanwhile, field exercise activity in the Jinan MR during 1995 remained relatively comparable to the 1994 level. While the number of GA exercises decreased from two in 1994 to one in 1995, the number of Division-level exercises increased from seven in 1994 to 11 in 1995. (DIA 1996)

5. Lanzhou MR

In 1977 the North-Western portion of China was divided into two MRs, Lanzhou and Xinjiang. Together these two regions contained 20 MF and 8 LF divisions. (IISS 1977) By 1980 the Xinjiang MR was replaced by the Urumqi MR. It is not clear whether this was due to a change in headquarters (HQ) or just a name change. The region, however, was still reported as covering western China. The number of divisions in Lanzhou was one armored and eight infantry in 1980. At

the same time there were six infantry divisions stationed in Urumqi. (IISS 1980)

Urumqi was absorbed by Lanzhou during the force reorganization of 1985. At that time, the region contained one armored and 13 infantry divisions. (IISS 1985) The region is similarly configured today with one tank and 12 infantry divisions. (IISS 1995) The Lanzhou MR borders Mongolia, Russia and India and contains a large number of ethnic minorities. The troops in this region probably serve a number of purposes including defense against Russia and India and containment of civil strife in the local populace.

In 1995 units in Lanzhou MR conducted two GA, nine Division, one Brigade and six Regiment-level exercises. While one fewer GA exercise was conducted, this represented a slight increase in overall exercise activity from the previous year. The 1994 exercises included three GA, nine Division, one Brigade and two at the Regiment-level. In September 1995 a GA conducted a long distance rapid mobility exercise over a 1,500 km distance. Many of the lower-level exercises were designed to practice live-fire and rapid reaction capabilities. (DIA 1996) The increase in exercise activity may be attributable to the instability of newly formed Islamic border states and internal ethnic unrest in Xinjiang Province.

6. Nanjing MR

In the early 1980s most of eastern coast of China was divided between the Nanjing and Fuzhou MRs. Combined, Nanjing and Fuzhou had a total of 12 infantry, 12 LF and one armored division in 1980. (IISS 1980) The two regions consolidated into one, the Nanjing MR, in 1985 and increased in force size to a peak of 16 infantry divisions in 1985. (IISS 1985) Nanjing returned to its pre-1980 size in 1989 and currently has two tank, 11 infantry and one artillery division. (IISS 1989, IISS 1995)

Nanjing MR is strategically located across the straits from Taiwan. In 1995 reports indicated a significant increase in the number of field exercises conducted by units in the region. Four GA, three Division, one Brigade and two Regiment-level exercises were conducted in 1995. In contrast, only one GA, one Division, one Brigade and two Regiment-level exercises were conducted in 1994. Many of the exercises included landing drills and beach seizing exercises. In addition, three of the GA exercises were amphibious operations including live-fire seaborne tactical landings. (DIA 1996) The increased activity may be correlated to the growing independence movement in Taiwan. Although the number of Taiwanese supporting the movement is relatively small, it still serves to antagonize the PRC.

7. Shenyang MR

Shenyang MR is responsible for North-Eastern China including the border with Russia and Mongolia as well as that part of China adjacent to North Korea. Next to the Beijing MR, Shenyang supported the largest number of division in 1980 with 18 infantry, three armored and 17 LF divisions. (IISS 1980) The deployment of such a large number of troops along the Soviet/Mongolian border only confirms that China was concerned about the Soviet Union. Secondarily, it may have been prepared to assist North Korea in the event of conflict on the peninsula.

The Shenyang MR was only slightly reduced as a result of the manpower cuts made in the mid to late 1980s. At last report the MR still had three tank, 15 infantry and one artillery division. (IISS 1995)

Despite the number of troops stationed in the MR, Shenyang experienced a decrease in field exercise activity in 1995. Two GA, three Division and one Regiment-level exercise were conducted in 1995, whereas three GA, seven Division and one Regiment-level were conducted in 1994. The only GA exercise reported by the Chinese media was a long distance, high-tech, rapid mobility exercise across North China into Inner Mongolia. (DIA 1995) The reduction in exercise activity is, like in the Beijing MR, probably the result of improved relations with Russia following the break-up of the Soviet Union.

C. NAVAL FORCES

During the time period covered by this study, the navy maintained three fleets, the North Sea Fleet, East Sea Fleet and the South Sea Fleet. Interestingly, the number and composition of forces deployed to these three fleets remained relatively stable over the fifteen year time span.

In the 1980 *Military Balance* reported the North Sea Fleet, which is responsible for the Yellow Sea, with a total of 500 navy vessels. (IISS 1980) In 1989 the publication began to produce more specific reports. In that year, the North Sea Fleet was reported as having two submarine, three escort, one mine warfare and one amphibious squadron. Additionally, 325 vessels were reported as patrol and coastal defense vessels. (IISS 1989) A slight increase in the number of patrol and coastal defense vessels was noted in 1993 dropping the number to 300. (IISS 1993) No other changes were reported in the next two years.

China's East Sea Fleet contained the largest number of navy vessels in 1980 with 750. (IISS 1980) The break-down of this force is very similar to the North Sea Fleet. It has two submarine, two escort, one mine warfare and one amphibious squadron, 270 patrol and coastal defense vessels and one Marine division. (IISS 1995) A comparison of the data as reported by the *Military Balance* in the 1987-88 edition and the 1989-90 edition seems to indicate that, although the number of squadrons in the North and East Sea

Fleets is comparable, the total number of vessels remains much larger in the East Sea Fleet. The East Sea Fleet is responsible for the waters just south of the Yellow Sea including those adjacent to Taiwan justifying the additional forces.

The South Sea Fleet is structured the same as the East Sea Fleet, although it has about fifty more vessels devoted to patrol and coastal defense missions. (IISS 1989) The total number of vessels reported by the *Military Balance* prior to 1989 was 600, a number in between that of the North and East Sea Fleets. (IISS 1987) The South Sea Fleet is primarily responsible for waters to the south of China including the South China Sea and Spratly Islands. It, therefore, seems reasonable that this fleet should have control more forces than the North Sea Fleet.

D. CONCLUSION

While PLA deployment patterns have not changed significantly in the last two decades, the number of troops in each MR decreased in accordance with the 1985 reduction in force. It is imporatant to note that each of China's military regions is in part designed to enforce 'domestic stability.' Even where a large number of troops are assigned to a MR, some of those troops are dedicated to internal security.

It is also interesting that the Beijing MR receives, and has always received, the largest number of troops. These troops are not in position to be readily deployed to any border where China could reasonably be expected to 'expand' or engage in imperial activity. This fact seems to indicate that these troops are not maintained for power projection. If China's primary intention were to gain regional hegemoony through force or threat of force these troops would be essential. As it stands, China keeps the largest number of its troops in the capital city. This indicates that it is concerned about domestic unrest, such as in Tiananmen Square in 1991, or just plain defense of China's capital from foreign aggressors.

In contrast to deployment patterns, China's military activity did experience a significant change between 1994 and 1995. The decrease in exercise activity in the Shenyang and Beijing MRs indicates a reduction in tensions between China and Russia. Meanwhile, increased activity in Nanjing, Guangzhou and Chengdu MRs reflect China's changing priorities. Beijing's attention appears to be on Taiwan, the South China Sea and Southwest China. Implications for Asia will be covered in more detail in the next chapter along with some final conclusions as to the nature and intent of China's military modernization.

VI. CONCLUSION

In order for China to pose a threat to the Asia-Pacific region, it must have both the military capability to carry out such a threat and the intent to use that capability. Analysis of the modernization of the PLA indicates that while China's military might is growing, for the most part, it is incapable of power projection and force sustainment. In addition, China does not seem to have any intention of obtaining regional hegemony by force. Chinese leaders have persistently claimed that "China will never pursue hegemonism." (Ching Pao 1994) My review of their modernization activities has demonstrated that Chinese leaders are more interested in economic growth than in an attempt to obtain regional hegemony by force or threat of force. Any move in the latter direction would destabilize the region and impede China's economic growth. This does not mean, however, that there are no potential flash points in the region. The next section will discuss some of the implications of China's modernization process for Asia and the United States.

A. IMPLICATIONS

1. Russia

During the Cold War, the Soviet Union was viewed as China's most serious threat. This is evident in the PLA's

force deployment patterns during those years with the Shenyang and Beijing MRs maintaining the largest concentration of troops. The fall of the Soviet Union certainly diminished the Russian threat, but did not completely alleviate China's fears. China still maintains a large concentration of troops on the Sino-Russian and Sino-Mongolian borders. A report published by the Center for Naval Analysis briefly presents two views on the future of Sino-Russian relations in Central Asia. "Some see China's presence as growing for economic reasons (including energy dependency), and as a source of stress in Sino-Russian relations that could result in some increase in military attention and deployments by Beijing." (Wilhelm 1996) The detractors from this position, however, "emphasize the common interest both parties have in economic development that could foster political stability . . .." (Wilhelm 1996) Economic competition is not the only potential source of tension between China and Russia. A resurgence of Russian communism also would prove threatening to China and might strain Sino-Russian relations.

China's military modernization program probably will not have much impact on Russia. The modernization of China's tank force, long range missiles and aircraft may give Russia some anxiety, but the biggest threat to the country is China's growing population. A peaceful migration and

assimilation of Chinese into Siberia and other bordering regions could in essence cede Russian territory to China.

2. Korea

In the last few years the Chinese appear to be distancing themselves from North Korea both economically and politically. At one time, China supported the North Koreans with "friendship prices" on goods and other forms of economic aid. Today, however, China is more interested in stimulating its own economy. As a result, it is no longer offering North Korea such favorable trading terms or assistance. (Economist 1994)

As China slowly moves away from North Korea, it has also been moving away from its traditional hard-line stance concerning the West and encouraging Pyongyang to follow its lead. (Davies 1995) In order to stimulate economic growth, China has established a diplomatic relationship with South Korea. It is unlikely that China will do anything to endanger this relationship, especially since any move against South Korea might alienate the United States and Japan.

Meanwhile, reunification of the Korean Peninsula is a real possibility. North Korea has been steadily declining over the last few years thus creating the potential for reunification. Unification of the peninsula could take place in one of several ways. The least desirable path to reunification is by military means. A desperate North Korea

may attempt to invade South Korea. In this situation China would be placed in a very awkward position, in between a "sister" communist state and a new trading partner. Intervention of behalf of North Korea would alienate not only South Korea and the United States but other Asian nations as well. Therefore, it would not be in China's best interest to intervene in such a conflict. An extenuating circumstance that may make such a situation problematic for the Chinese is North Korea's control of nuclear weapons. Any Chinese decision must take North Korea's nuclear capability into consideration.

Although conflict between China and either of the two Korea's is unlikely in the immediate future, China's military modernization program does increase China's opportunity to achieve victory if a conflict were to arise. Chinese "fist" and regular army forces from the Shenyang MR could be moved quickly to the Korean border. At the same time, Chinese submarines might be deployed to choke points near the Sea of Japan and Yellow Sea, making U.S. reinforcement of troops in Korea very difficult. Korea's close proximity to the mainland makes the peninsula an easy target for Chinese missiles. China also would be helped by the short logistics pipeline, whereas the United States may have trouble supporting forces at such a great distance to assist Korean troops.

3. Japan

Fifty years after the end of World War II, China remains wary of Japan's military potential. A resurgence of Japanese nationalism along with its remilitarization are China's main concerns. While the Japanese military has been for "self defense purposes only" since the end of WWII, it maintains a very modern force. As a result, I would suggest that the Chinese tacitly support the U.S. military presence in the region.

A potential flash point between China and Japan is the dispute over the eight islets and reefs known as the Diaoyu Islands by the Chinese and the Senkakus by the Japanese. The islands, which lie 190 kilometers northeast of Taiwan and may contain vast oil reserves, have been in dispute for the last 25 years. Chinese claim to the islands goes back to the 16th century while Japan insists that it annexed the islands in 1879 when it took over Okinawa and formally incorporated them in 1895 after defeating China in a brief naval encounter. The issue of sovereignty erupted in 1972 when the United States handed the islands to Japan after ending its administration of Taiwan. The controversy reignited this past July when a Japanese right-wing group raised a temporary lighthouse on one islet and placed two memorials and a flag on another. (Gilley, et. al. 1996)

The dispute over the islands has put Beijing in a difficult position. "Cumulative Japanese investment amounts

to $13 billion in China, $6 billion in Taiwan and $14 billion in Hong Kong," so it is not in China's interest to damage ties with Tokyo. (Gilley 1996) On the other hand, protesters in China, Hong Kong and Taiwan are pressuring Chinese officials to stand firm on the issue.

China has both economic and military reasons not to escalate the conflict with Japan. Economically, China literally cannot afford to alienate Japan. It relies too much on Japanese trade and aid for its own economic modernization. Also, while the addition of Jiangwei and Luhu class combatants and more capable transport ships to the PLAN inventory increase its power in the region, it probably cannot compete with Japan's Self Defense Force. Equipped with the latest technology, Japan's navy is very formidable.

4. Taiwan

In March 1996 tensions between the PRC and Taiwan reached a peak after nine months of strain that began with Taiwan President Lee Teng-hui's unofficial visit to the United States in June 1995. Chinese leaders viewed the visit as an attempt to raise Taiwan's international status. Responding to Lee's visit, China conducted missile exercises 85 miles north of Taiwan in July and August. Beijing was further angered as Taiwan's first direct Presidential election scheduled for March 1996 neared. The shift toward a more direct democracy was perceived by China as another

effort by Taiwan to move toward independence. In an attempt to further intimidate Taiwan, China conducted a new series of missile tests as well as naval and air exercises in the vicinity of Taiwan. The exercises gained the attention of the United States which ordered two aircraft carriers into the area.

Prior to this series of events, China appeared to be content with the status quo with respect to Taiwan. Beijing has always contended that there is only one China and that Taiwan is a part of China. The "One China" policy is also observed by Taiwan and the United States. Taiwan, however, contends that Taipei is the legitimate government of China not the government in Beijing.

In spite of their differences, China and Taiwan have a good economic relationship with each other. Trade flourishes between the two nations. It is, therefore, not in China's interest to blockade or attack Taiwan. Three events, however, almost certainly would result in Chinese aggression, a declaration of independence by Taiwan or a strong movement in that direction, recognition of Taiwan in any organization in which membership is based on statehood or the development or purchase of nuclear weapons by Taiwan. The risk of conflict, in absence of the above, is low, although China may continue intimidation tactics if provoked.

If China felt compelled to take military action against Taiwan, it would probably be in the form of a blockade or a

few choice missile attacks. Currently, China does not appear capable of invading the island, but could most likely conduct a successful blockade using naval vessels, mines and missiles. The disadvantages to Chinese military action of this type are many. First, China potentially could destroy the Taiwanese economy and thus hurt its own economy. Second, China risks drawing the United States and its superior military into the conflict. Finally, China would alienate its Asian neighbors.

5. Hong Kong

Next summer Hong Kong will transition to Chinese sovereignty after 99 years of British rule. The world, especially Taiwan, will be watching the transition very carefully. China initially agreed to "one country, two systems." Differences between China and Hong Kong, however, are now surfacing over such issues as political freedom, rule of law, and freedom of the press. These differences may lead to internal conflict within Hong Kong that will have to be quelled by PLA soldiers. Currently, plans call for a garrison of PLA troops to be stationed in Hong Kong. There is no indication that China will alter this plan, but popular uprisings in Hong Kong after the transition may force the Chinese to increase its military presence.

Another possibility for Hong Kong is its use as a naval and air base for power projection into the South China Sea.

The Chinese currently lack the ability to successfully project power into the region and sustain it for more that a short time. Hong Kong would greatly increase China's military potential in the waters of Southeast Asia. A move to permanently station forces capable of power projection in Hong Kong would certainly alarm China's already wary southern neighbors.

6. Southeast Asia

The nations of Southeast Asia are becoming increasingly economically interdependent with the PRC. Despite these economic ties, many of the nations in the region are threatened by China's growing aggression in the South China Sea. The South China Sea has long been claimed by the PRC and is of strategic interest for two reasons. The South China Sea and its island reefs potentially contain abundant natural resources. It is also strategically located, connecting the Pacific Ocean with the Indian Ocean. (Studeman 1996)

For these reasons, China has gradually been increasing its military presence in the region. The purchase of Su-27 aircraft and Kilo class submarines from Russia along with the construction of an air/naval base on Woody Island in the Paracels served to enhance China's power projection in the region. (Richardson 1995)

The most volatile point in the region is the potentially resource rich Spratly Islands. The Islands are claimed, in whole or in part, by six nations including China. An example of China's aggressiveness in the region came last February when it built a base on Mischief Reef. Mischief Reef, a remote atoll 750 miles from China's southern coast, is claimed by the Philippines. (Sherwell 1995) China's seizure of the atoll displayed a blatant disregard for the claims of other nations in the region. Indonesia is also in dispute with China over territory in the region. The Indonesian owned Natuna Islands, rich in natural gas, are included in the South China Sea areas claimed by Beijing. (Suryodipuro 1995)

Fear that China's creeping aggression in the South China Sea may destabilize the entire region is pervasive. Even Vietnam, which claims at least 20 islands, reportedly fears China's recent aggression. "Hanoi's effort to establish diplomatic relations with the United States are admittedly linked to fears of China's growing military punch." (Jameson 1993) As long as the nations of Southeast Asia and China have overlapping territorial claims and Chinese intentions are unclear, countries in the region will remain wary of the PRC. The wariness, in turn, will result in increased military purchases and upgrades in the regions.

Based on the findings in this thesis, China does not have the capability to project forces into the South China

Sea and sustain them for more than a very short period. For that reason, it is highly unlikely that China will attempt any type of military action other than "creeping aggression."

China appears primarily to be concerned with keeping a foothold in the South China Sea. Although it publicly claims the entire sea, the PRC has indicated a desire to negotiate with other claimants over oil exploration rights. Beijing will probably only take military action if it feels that it is being edged out of the region. Unilateral attempts to explore the South China Sea for natural resources may spur the Chinese to act. The countries of Southeast Asia may be able to reduce the risk of conflict by negotiating with each other and China over the issue.

7. United States

Currently, China poses no direct threat to the United States. While the PLA has almost three million soldiers, sailors and airmen, its current military capabilities are estimated to be at least 15-20 years behind those of the United States. Efforts to improve the PLA have increased in the last 6 years, but modernization continues to occur at a moderate pace. Unless this changes, China probably will attempt to avoid conflict with the United States in the near term.

The United States, however, could be pulled into a conflict in Asia. The two most likely areas of concern are

Taiwan and the South China Sea. In the case of Taiwan it is in the best interest of the United States to encourage the Taipei government to maintain the status quo and avoid antagonizing the PRC. Taiwan can operate as an independent democracy as long as it does not formally move in that direction.

A conflict in the South China Sea may prompt U.S. involvement to protect freedom of navigation in the area. The United States, therefore, must encourage communication and cooperation among the nations of Southeast Asia and China. It is imperative, however, that ASEAN not be perceived by Beijing as an anti-China organization.

B. RECOMMENDATIONS

The United States can take four actions to enhance the security of Asia. First, it can promote a policy of engagement, not just conditional engagement. I define conditional engagement as a policy in which the United States ties requirements to foreign relations, whereas a policy of engagement is free of such requisites. The only way that the United States can have an influence on China is through military, economic and political engagement. By linking these forms of engagement to conditions such as human and intellectual property rights, the United States is endangering its relationship with China. Beijing views conditional engagement as an attempt by the United States to

intervene in China's internal affairs. This perception surely brings back memories of China's "hundred years of shame."

A second action that the United States can take to better relations with China and promote security in Asia is to develop clear policies with regards to the PRC. U.S. policymakers have been sending the Chinese mixed signals which, no doubt, have Chinese leaders confused. As a result, some in Beijing believe that the United States is attempting to encircle China and contain it. To remedy this situation, the United States needs to develop a clear-cut policy and ensure that China understands our position.

The United States must also maintain a military presence in the region. Surveillance flights over the Spratly Islands may enable the United States to anticipate a potential conflict and prevent it or at least prevent escalation. U.S. presence may also deter any potential aggression in Asia. By engaging China at every level, developing clear-cut policies and maintaining a military presence in the region the United States may be able to enhance the security in the region.

Finally, it is important that the United States continuously monitor the PLA's economic activities, modernization process, force deployments and exercise activity in order to detect any future changes in capability or intent.

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